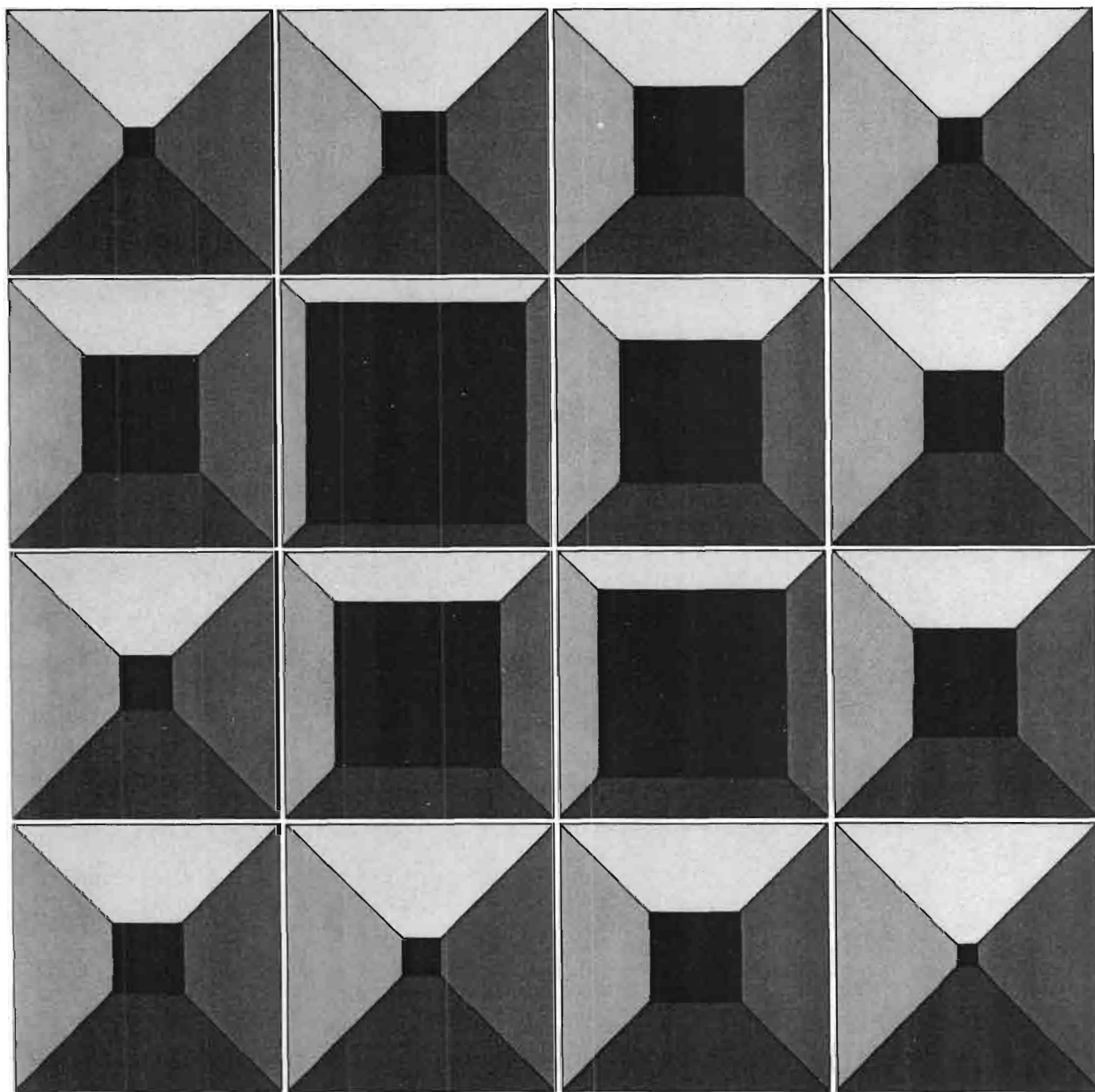


# Modifying Military Retirement: Alternative Approaches

April 1984



Congress of the United States  
Congressional Budget Office



Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE <b>APR 1984</b>		2. REPORT TYPE		3. DATES COVERED <b>00-00-1984 to 00-00-1984</b>	
4. TITLE AND SUBTITLE <b>Modifying Military Retirement: Alternative Approaches</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>Congressional Budget Office ,Ford House Office Building, 4th Floor ,Second and D Streets, SW ,Washington,DC,20515-6925</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>Same as Report (SAR)</b>	18. NUMBER OF PAGES <b>106</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			

**MODIFYING MILITARY RETIREMENT:  
ALTERNATIVE APPROACHES**

The Congress of the United States  
Congressional Budget Office

---

## PREFACE

---

During the past 15 years the military retirement system has been the focus of nine major studies and two comprehensive legislative proposals. All have supported major changes. The system has been criticized repeatedly for its high cost, inequity, generous benefit provisions, and contribution to personnel management problems. Defenders of the system argue that it is essential for maintaining a military force of skilled career personnel. Congressional discussion of the merits of modifying military retirement appears likely in response to two 1984 studies that recommended changes and the prospect of revising the Civil Service Retirement System.

This study, prepared at the request of the House Budget Committee, discusses options for changing the retirement system in order to reduce its costs while continuing to meet requirements for skilled military manpower. The alternatives evaluated include three recent proposals for change and a fourth based on the recommendations of other studies that have focused on the retirement system. In keeping with the mandate of the Congressional Budget Office (CBO) to provide objective and impartial analysis, the study offers no recommendations.

Neil M. Singer of CBO's National Security and International Affairs Division prepared the report with the assistance of Ed Shephard, Marvin M. Smith, and Stephanie Martin, under the general supervision of Robert F. Hale. The report benefited from the comments of T. Keith Glennan III, David Delquadro, and Barbara Hollinshead. The author gratefully acknowledges the cooperation of the staff of the Fifth Quadrennial Review of Military Compensation and the help of Toni Hustead, Office of the Actuary, Defense Manpower Data Center. Extremely helpful reviews were offered by Robert B. Pirie, Jr., of the Institute for Defense Analysis; Maj. Gen. Stuart H. Sherman, Jr., U.S. Air Force, and Capt. Norman A. Mayo, U.S. Navy, both of the Fifth Quadrennial Review of Military Compensation; and Henry J. Lawler. (Outside assistance implies no responsibility for the final product, which rests solely with CBO.) The report was edited by Francis Pierce with the assistance of Nancy H. Brooks.

Rudolph G. Penner  
Director

April 1984

---

## CONTENTS

---

	<u>Page</u>
PREFACE .....	iii
SUMMARY .....	xi
CHAPTER I. INTRODUCTION AND OVERVIEW .....	1
The Current Military Retirement System .....	3
Legislative History .....	4
CHAPTER II. ISSUES CONCERNING THE CURRENT MILITARY RETIREMENT SYSTEM.....	7
Cost .....	7
Manpower Requirements .....	10
Equity Issues .....	14
Manpower Problems Under the Current Retirement System .....	18
Comparisons With Other Systems .....	24
Summary .....	30
CHAPTER III. RECENT EFFORTS AT RETIREMENT MODIFICATION.....	33
Major Studies of the Retirement System.....	33
Congressional Action on Military Retirement .....	38
Elements of Comprehensive Reform Proposals.....	40

---

## CONTENTS (continued)

---

	<u>Page</u>
CHAPTER IV.    OPTIONS FOR MILITARY RETIREMENT .....	43
Description of Options .....	43
Measures of Cost and Military Manpower .....	48
Cost and Manpower Impacts .....	51
Other Options .....	66
APPENDIX A.    PROPOSED MODIFICATIONS IN THE MILITARY RETIREMENT SYSTEM .....	71
APPENDIX B.    PERSONAL DISCOUNT RATES .....	81

---

## TABLES

---

		<u>Page</u>
SUMMARY TABLE.	COMPARISON OF RETIREMENT ALTERNATIVES .....	xix
TABLE 1.	MILITARY FORCE PROFILE .....	11
TABLE 2.	CURRENT FORCE OBJECTIVES .....	12
TABLE 3.	CAREER FORCE AS A PERCENT OF TOTAL ENLISTED STRENGTH, SELECTED FISCAL YEARS .....	23
TABLE 4.	LIFETIME RETIREMENT EARNINGS OF TYPICAL MILITARY RETIREES UNDER VARIOUS RETIREMENT PLANS .....	25
TABLE 5.	OPTIONS FOR MILITARY RETIREMENT .....	44
TABLE 6.	RETIREMENT ANNUITIES FOR TYPICAL ENLISTED RETIREES UNDER ALTERNATIVE PLANS .....	48
TABLE 7.	RETIREMENT ANNUITIES FOR TYPICAL OFFICER RETIREES UNDER ALTERNATIVE PLANS .....	49
TABLE 8.	LONG-RUN EFFECTS OF ALTERNATIVES FOR MODERNIZING MILITARY RETIREMENT .....	52
TABLE 9.	ESTIMATED OUTLAYS FOR RETIRED PAY, 1985-2020 .....	54

---

**TABLES (continued)**

---

	<u>Page</u>
TABLE 10. ESTIMATED TOTAL OUTLAYS FOR MILITARY PERSONNEL, 1985-2020 .....	55
TABLE 11. COMPARISON OF RETIREMENT ALTERNATIVES .....	64
TABLE B-1. PERSONAL DISCOUNT RATES .....	82



---

## FIGURES

---

	<u>Page</u>
FIGURE 1. RETIREMENT OUTLAYS.....	8
FIGURE 2. CONTINUATION RATES FOR ENLISTED PERSONNEL.....	19
FIGURE 3. CONTINUATION RATES FOR COMMISSIONED OFFICERS.....	20

---

## SUMMARY

---

The military retirement system consists of a number of separate programs providing benefits to different categories of military personnel and their survivors. By far the largest is the program that provides retired pay for active-duty personnel who complete "full careers" and retire without disability. It includes 1.1 million out of a total of 1.4 million retirees (the rest are disability retirees or survivors) and accounts for over 80 percent of the overall cost of military retirement. This study focuses on that program, commonly referred to as the military retirement system.

Critics of the retirement system charge that it costs too much, is too liberal in its provisions, and is in conflict with efficient military personnel management policies. This study considers alternative systems that would respond to these criticisms. One requirement of any retirement system, however, is that—in conjunction with other pays and allowances for uniformed personnel—it must be adequate to meet the military's unique needs. Accordingly, this study assesses the alternatives not only from the standpoint of costs but in light of how they would affect service members' willingness to pursue military careers.

## MAJOR FEATURES OF THE CURRENT SYSTEM

The current retirement system offers those completing 20 years of service an immediate annuity, but provides no benefits for those leaving after shorter careers. The annuity is equal to 2.5 percentage points of final basic pay multiplied by the number of years of service, and is fully adjusted for inflation as measured by the Consumer Price Index (except for limited adjustments during fiscal years 1983-1985). Retired personnel are eligible for earned Social Security benefits with no reduction in their annuities. The lump-sum equivalent of retired pay under this system (not including Social Security benefits) ranges from about \$100,000 for a very junior enlisted member after 20 years of service to over \$1,000,000 for very senior officers with 30 or more years of service. Average retirement ages are 42 for enlisted members (after 22 years of service) and 46 for officers (after 25 years). Over one-third of all retirees leave active duty upon completing 20 years of service.

## ISSUES CONCERNING THE CURRENT RETIREMENT SYSTEM

Changes in the military retirement system must address not only its cost but other issues, including the need for a system that will contribute to meeting the services' needs for manpower.

### High Cost of the System

Outlays for military retirement have grown dramatically in recent years, nearly quadrupling (in real terms) between 1963 and 1984. They are projected to grow more slowly in the future, from their current level of \$16.5 billion to \$19.4 billion in 2000 and \$22.4 billion by 2043 (in constant dollars). The rapid increases in past years stemmed from a number of factors: increases in real wage levels in the economy; a rising retiree population that included veterans of World War II and the Korean War; and statutory provisions that increased retired pay faster than other elements of military compensation. Factors governing future growth include changes in life expectancy and increases in retention rates.

The value of the retirement system for personnel now in service is best expressed in terms of an "accrual charge," representing the percentage of basic pay that would have to be set aside to build a fund large enough to pay future retirement benefits. An accrual charge for the current system, established by the Department of Defense at 51 percent of basic pay, will appear in place of outlays for payments to current retirees beginning with the 1985 defense budget. In the absence of changes in the structure of the retirement system, accrual costs should show the same trends as other current personnel costs.

By any standard, accrual costs are a high percentage of basic pay. But costs alone are not an adequate criterion for judging the adequacy of the military retirement system. Military retirement pay, in combination with active-duty pays, must be adequate to allow the military to meet its needs for military personnel. At issue is whether the retirement system and other compensation and personnel policies are equally effective in enabling the services to meet manpower goals.

### Its Contribution to Military Manpower Requirements

The military services strongly support retention of the current retirement system because they view it as important in helping them to retain needed career personnel. Current manpower requirements call for approximately 2.1 million active service members, of whom slightly more than half

have more than four years of service and thus are considered members of the "career" force. Only 5 percent of career personnel have more than 20 years of service; the preponderance have served 4 to 12 years. Thus most active-duty military personnel are under age 40. While the distribution of personnel by years of service varies considerably from one year to another, the current profile approximates the services' objectives closely.

The retirement system helps the services meet their desire for a "young and vigorous" force by allowing many members to separate from service at still-youthful ages. The system also permits the services to separate others after 20 years of service without imposing financial hardship. Early retirements serve personnel management objectives by permitting the promotion of more junior personnel, a major retention incentive.

In addition, the current retirement system "locks in" skilled personnel with 12 to 20 years of service by failing to provide or "vest" benefits before 20 years of service. Many such personnel might otherwise elect to leave in favor of civilian employment. The military services contend that the retirement system thus guarantees an adequate supply of trained, skilled mid-career personnel even as it ensures that few will stay beyond 20 years of service.

### Equity Aspects

Conditions of employment in military service differ from those in civilian occupations in many ways. Service members are frequently separated from their families; they are subject to a special code of justice; and many of them must face the perils of combat. These "dis-amenities," often referred to as the "X-factor," are sometimes cited as justifications for a generous military retirement system. The X-factor argument overlooks some of the positive aspects of military service. But to the extent that it holds, it merely explains some of the difficulties of meeting military manpower requirements. It does not provide a justification for retention of the current retirement system in preference to other retirement, compensation, or personnel policies.

The present retirement system has also been defended as a necessary way of compensating members for the income loss they are likely to suffer when they leave military service and begin second careers in the civilian sector. Evidence from a number of studies indicates that enlisted and officer retirees alike experience second-career income losses, although it is difficult to estimate the magnitude and duration of the losses. But benefits under the present retirement system are not linked to such second-career income loss. The need for military retirement as a part of the overall

compensation system is determined by the importance of meeting military manpower objectives, not second-career income loss.

Nor do other equity arguments justify keeping the present system intact. Some have argued for retention of the present system on the ground that there is an implicit contract between the government and past and present service members. Others see the retirement system as inequitable to those service members--the vast majority--who do not serve long enough to become eligible for benefits, as well as to the taxpaying public, who receive considerably less generous retirement benefits than military members. But these equity considerations, whether raised in defense or in criticism of the system, are of no more than secondary importance. All of them ignore the underlying basis for the retirement system, which is to assist the military services in meeting manpower goals.

### Manpower Problems

Studies of military retirement have repeatedly identified problems in the use of military manpower arising from the present system. One problem is that retention incentives under the present retirement system become weak after members complete 20 years of service. All nine of the major studies of the military retirement system conducted over the past 15 years--including five done by the Department of Defense--have recommended changes in the retirement system to increase the incentives for longer careers. It is true that retaining more senior personnel could slow promotions and diminish the youthfulness and vigor of the force. But these persons are also the most experienced and thus possibly the most productive members of the military. Current trends in manpower requirements tend to emphasize skill and training while placing less importance on "youth and vigor."

A second shortcoming of the current system is that it provides no retirement benefits (aside from Social Security) for members who fail to complete 20 years of service. Although the services now have the option of separating unproductive members involuntarily before 20 years, the prospect of depriving them of benefits makes supervisors very reluctant to use this option. Eight of the nine recent studies of military retirement have recommended changing the system to make it easier to separate personnel involuntarily short of the 20-year point.

Despite its generous benefits, the present retirement system does not appear to exert a strong retention pull for members early in their careers.

Yet members with 4 to 12 years of service make up 60 percent of all career personnel, and their retention would be critical in any expansion of the career force. The military services use other elements of the compensation system, including special and incentive pays and bonuses, to retain personnel early in their careers. Nonetheless, it seems clear that the current retirement system will be of at best modest help in retaining these key personnel.

### Comparisons with Other Systems

Comparisons are often made between the military retirement system and civilian plans. It is generally agreed that the military retirement system provides more generous benefits than are available in most non-military plans. Together with Social Security, the cost of benefits for military retirees amounts to about 40 percent of the military "salary" or Basic Military Compensation (defined as the sum of basic pay, allowances for quarters and subsistence, and the tax advantage that occurs because the allowances are exempt from federal taxes). Typical private-sector pension plans offered by large employers, in combination with Social Security, have total accrual costs of roughly 14 percent of salary (not including the cost of retirement-related fringe benefits, thrift plans, stock options, and other types of deferred compensation, which have a combined average cost of 2 percent of salary). The Civil Service Retirement System has an accrual cost equal to about 30 percent of salary (net of the employee's contribution). The advantage afforded by the military system over civil service and other systems lies not so much its higher level of annual benefits as in the length of time they are received. Military retirees often begin receiving benefits around age 40; most other retirees do not get them until around age 60.

Benefits under specialized government plans resemble military benefits more closely. Military retirement is slightly more generous than benefits for federal air traffic controllers and, with some exceptions, those for state and local policemen and firemen. Federal protective services personnel leaving after 20 years also receive smaller benefits than military retirees, but slightly higher benefits after 30 years of service.

Other countries' military retirement plans differ from that of the United States in many ways, including age at retirement, minimum length of service, integration with social insurance, and inflation protection. In general, however, U.S. military retired pay exceeds that under most other countries' plans. For 20-year retirees the U.S. system is considerably more generous than most, while for 30-year personnel it generally pays slightly higher benefits.

## EARLIER ATTEMPTS TO MODIFY MILITARY RETIREMENT

Concern over the generosity of military retirement, and the manpower problems it creates, has led to repeated studies of the system. Major studies of military retirement include those by the First Quadrennial Review of Military Compensation (1969), the Interagency Committee (1971), a Department of Defense review leading to the Retirement Modernization Act proposal (1974), the Defense Manpower Commission (1976), the Third Quadrennial Review of Military Compensation (1976), the President's Commission on Military Compensation (1978), a further Department of Defense review culminating in the Uniformed Services Retirement Benefits Act (1979), the President's Private Sector Survey on Cost Control (1984), and the Fifth Quadrennial Review of Military Compensation (1984).

Congressional action on military retirement has been much less sweeping than recommended by most of these studies, focusing mainly on changes to the automatic cost-of-living adjustments (COLAs) now provided military retirees and on the use of final basic pay as the basis for calculating retired pay. The studies, in contrast, have been concerned with modifying military retirement to meet manpower goals at an acceptable cost. To this end they have generally recommended increasing the incentives for longer careers, improving the military personnel system's flexibility in separating members before they complete 20 years of service, and reducing the overall cost of the retirement system. Several studies have also advocated restructuring military retirement to provide stronger retention incentives between the fourth and twelfth years of service.

Should the Congress opt for more far-reaching changes, the studies show a near consensus on how the system should be modified. A two-tier structure--advocated by eight of the nine studies--would provide lower benefits immediately after retirement than during old age. Formula revisions (from the 2.5 percent of basic pay per year of service used at present) have frequently been proposed to modify the retention incentives offered by the retirement system. All studies support the use of some average basic pay instead of final basic pay in calculating retirement, but there is no consensus on whether to phase in this change immediately. Most studies advocate some integration of military and Social Security benefits, reducing military benefits once the retiree begins to receive Social Security. All but one support early vesting of benefits, usually after completing ten years of service. Several propose other retention incentives (such as cash payments after ten years of service) to help the services meet their needs for personnel with 4 to 12 years of service. Most studies recommend grandfathering all or most active-duty personnel, leaving their benefits substantially unchanged, even though doing so would delay the realization of savings to the government from retirement modification. And all but two--the studies

conducted subsequent to the high inflation rates of the late 1970s--propose retention of full COLAs for military retirees.

## ALTERNATIVES FOR MILITARY RETIREMENT

This study focuses on four of the many possibilities for modifying the military retirement system. Three of these options have been proposed recently.

### Options

The "Reduced Annuity and Early Withdrawal" plan of the Fifth Quadrennial Review would provide full annuities only for members who complete 30-year careers, and would reduce inflation protection. To prevent adverse effects on retention, the plan would provide lump-sum early withdrawal cash benefits of two times annual basic pay (for officers) or three (for enlisted personnel) at the time of retirement, to all members completing 20 years of service. At current pay levels, this would mean lump-sum benefits at retirement of \$78,768 for the typical officer and \$55,544 for the typical enlisted person. Senior members now on active duty could choose to be "grandfathered"—that is, remain covered under the current retirement system. Once fully implemented, this plan would reduce the present value of lifetime benefits by 20-25 percent for typical retirees.

A simpler second option is "Permanent Half-COLA," proposed in the President's budget for 1984. Under this proposal retirees under age 62 would receive retired pay adjustments (COLAs) equal to one-half rather than 100 percent of the change in the Consumer Price Index. This change would apply to all current and prospective retirees under age 62. Typical retirees would experience reductions of roughly 25 percent under this plan.

A third plan, called the "Modified Half-COLA" or Synthesis option, would extend the half-COLA approach to include some of the features proposed by earlier studies: a two-tier approach achieved with half-COLAs through age 62 followed by a catch-up raise and full COLAs thereafter, early vesting of benefits, immediate phase-in of the highest three-year average basic pay as the basis for calculating annuities, Social Security integration, and partial grandfathering. The plan would reduce a typical retiree's lifetime benefits by 18-22 percent.

The final option is that proposed by the President's Private Sector Survey on Cost Control. Its major departures from other options are its proposed reductions in annual retirement pay and its requirement that im-



mediate, unreduced annuities be paid only after the retiree reaches age 62. In addition, this alternative provides for early vesting, immediate phase-in of high-five average Basic Military Compensation, Social Security integration, partial COLAs after age 62, and partial grandfathering. The most far-reaching of the four packages, this plan would lead to reductions of 85-89 percent in the present value of a typical retiree's lifetime benefits.

### Measures of Cost and Military Manpower

The best measure of the cost of a retirement system is its accrual rate, which measures long-run costs rather than current outlays. But outlays are also important in the federal budget debate, and this study assesses the four options in terms of both measures.

Along with its effects on costs, modification of the retirement system could be expected to change the military force profile. This study estimates the aggregate change that could be expected in the size and experience level of the career force, defined to include members with more than four years of service. It also assesses the effects the options would have on other aspects of personnel management, including incentives for careers beyond 20 years, flexibility in separating personnel involuntarily with fewer than 20 years of service, and incentives for retaining "journeyman" (with 4 to 12 years of service) personnel who are critical to the overall size of the career force. The results of this analysis are shown in the Summary Table.

The cost and manpower effects presented in the Summary Table are relative to a growing baseline force. The actual career force has grown by over 12 percent during 1978-1982, reflecting the high career reenlistment rates currently being experienced by all services. The enactment in 1980 of "high-three" average basic pay as the basis for calculating retirement pay for retirees entering service after September 7, 1980, will tend to hold down future career force growth. Nonetheless, CBO projects a long-run baseline force (including the effects of high-three) some 5 percent larger than the force in existence at the end of 1982. Modest reductions from this long-run baseline, such as those shown in the Summary Table for some of the alternative retirement systems, would merely hold the career force closer to its current level and composition rather than permitting it to grow in size and experience level.

### Effects of the Options

The "Reduced Annuity with Early Withdrawal" plan of the Fifth Quadrennial Review is designed to maintain the current value of retirement after

SUMMARY TABLE. COMPARISON OF RETIREMENT ALTERNATIVES

	QRM Reduced Annuity and Early Withdrawal	Permanent Half-COLA	Synthesis (Modified Half-COLA)	PPSSCC (Annuity at Age 62)
Accrual Savings in 1985 (Percent)	9.2	25.2	8.4	76.7
Reductions in 1985 Budget Authority (Billions of dollars)	1.6	4.4	1.5	13.5
Outlay Savings (+) or Additional Costs (-) (Millions of 1985 dollars)				
1985	+68	-142	-193	-291
1985-89 total	+1,208	+2,339	+2,707	+2,176
2000	-1,923	+3,159	+3,048	+6,535
2020	+257	+5,816	+4,123	+15,994
Change in Career Force (Percent)				
Size	+4.7	-3.4	-3.0	-11.0
Average Seniority	+2.3	-2.7	-2.3	-7.9
Increase in Incentive for Long Career (20+ years)	Strong	None	None	Strongest
Increase in Incentive for Journeyman Retention (4-12 years)	None	None	Strong	Strong
Adds Flexibility to Separate Involuntarily	No	No	Yes	Yes
Risk of Unanticipated Effects	Least	Modest	Larger	Largest

NOTE: Assumes long-run inflation of 4.5 percent, wage growth of 5.0 percent, and a government discount rate of 5.5 percent. Individual discount rates are assumed to vary by age and officer/enlisted status. (See text and Appendix B.)

20 years of service. But because of the large cash benefits under its early withdrawal provisions, CBO estimates that the plan would eventually increase the size of the career force by some 46,500 enlisted members and 3,800 officers, or 4.7 percent overall, so that the career force would eventually exceed its current size by nearly 10 percent. Moreover, the average length of service within the career force--a measure of overall experience levels--would increase by 2.3 percent for enlisted members and 2.2 percent for officers. The plan would also offer modestly greater encouragement for careers longer than 20 years. It is the least risky of the four alternatives in that it would involve the least change in incentives.

But the Reduced Annuity plan would not contribute to achieving other personnel management objectives, such as flexibility in separating personnel involuntarily or added incentives to retain journeyman personnel. Moreover, accrual costs would fall by only about 9.2 percent or \$1.6 billion in the 1985 defense budget. Outlays would fall initially but would then increase dramatically once members became eligible to receive their early withdrawals. Outlays would eventually be permanently reduced but only after about the year 2020.

In contrast, the "Permanent Half-COLA" option would generate immediate, large, and permanent savings in both accruals and outlays at the cost of modest reductions in the size of career officer and enlisted forces. Accrual costs would fall by 25 percent or \$4.4 billion in the 1985 defense budget. Outlay savings during the first five years after enactment would be over \$2.3 billion (in constant 1985 dollars), realized chiefly from reducing benefits for current retirees. The career force would eventually be reduced by about 3.4 percent, offsetting some of the growth projected to occur and leaving the career force only slightly larger than at present. Average enlisted and officer experience levels in the career force would decline by 2.6 and 3.2 percent, reflecting the weakened career incentives under the Permanent Half-COLA alternative. If the Congress wished to offset this 3.4 percent reduction in the size of the experienced force, it could do so with added reenlistment bonuses totaling about \$400 million a year, or about one-tenth of the steady-state savings in retirement costs. (The costs of bonuses or other added retention incentives would be offsets to the savings shown in the Summary Table.)

But because everyone's retirement pay would be cut and none of the savings redistributed to achieve changes in incentives, Permanent Half-COLA would not contribute to the attainment of many of the personnel management objectives identified in earlier studies. Incentives for long careers would not be increased, and there would be no improvements in flexibility or in retention incentives for journeyman personnel. The large

reductions in retired pay would also carry an added element of risk that manpower objectives might not be met.

The "Modified Half-COLA Synthesis" option would reduce accrual costs by only 8.4 percent, or \$1.5 billion in 1985, the smallest reduction under any of the four options. Outlay reductions would begin immediately and grow steadily over time, though they would be smaller than under Permanent Half-COLA. The reduction in the career force, which would be smaller than under the simpler plan (about 3.0 percent), would offset less of the growth projected to occur in the size of the career force. Average enlisted and officer experience levels would decline by only 2.2 percent and 2.6 percent, and personnel management objectives identified in earlier studies would be more effectively achieved because some of the savings would be redistributed to improve flexibility and journeyman retention incentives. As with the Permanent Half-COLA approach, additional pay, benefits, or bonuses could be used to offset the estimated decline in the size of the career force. However, the Synthesis option carries more risk of unanticipated consequences than the two previous plans because it would make more changes in the pattern of benefits under the retirement system.

Finally, the "Annuity at Age 62" proposal of the President's Private Sector Survey on Cost Control offers the largest reductions in accrual costs (\$13.5 billion, or 76.7 percent, in fiscal year 1985) and ultimately in outlays, once an initial grandfathering period is past. It would strengthen retention incentives for journeyman personnel and for members beyond 20 years of service. But this option would lead to an 11.0 percent reduction in the size of the career force, more than enough to offset projected growth and leave the career force smaller than at present. Bonuses or other personnel benefits could be increased to offset this estimated reduction in whole or in part, while still leaving significant overall savings. But average experience levels of the career force would also decline by 6.8 and 12.5 percent for the enlisted and officer corps. This plan, which constitutes the greatest departure from the current system, thus poses the greatest risk of unanticipated effects.

---

## CHAPTER I. INTRODUCTION AND OVERVIEW

---

The military retirement system is not a single program, but a number of programs that apply to different categories of military personnel and their dependents and survivors. These programs include:

- o Nondisability retired pay, for active-duty personnel who complete "full careers" and retire without disability;
- o Disability retired pay for active-duty members who, because of disabilities, are separated from active duty before they complete full careers;
- o Dependency and indemnity compensation, a longer-term payment to survivors meant to compensate for losses associated with "service connected" deaths;
- o Nondisability separation pay, for officers and Reserve enlisted personnel involuntarily separated from service before the end of a full career;
- o Disability severance pay, for active-duty members separated from service because of minor disabilities insufficiently severe to qualify them for disability retired pay;
- o Survivor benefits, an elective program under which a member can contribute part of his pension and so qualify his surviving dependents for an annuity linked to the level of the member's retired pay; and
- o Group life insurance, an elective, contributory program of privately underwritten term life insurance in which the federal government pays any additional hazard costs associated with military service.

Military personnel also accrue Social Security benefits on the basis of their military service. In addition, a Reserve retirement program applies to members who complete full careers as members of the part-time Reserve components, whether they began as active-duty members or as reservists.

Efforts at modifying the military retirement system in recent years have not been limited to concern with the key portion, nondisability retire-

ment. Growing dissatisfaction with the survivor benefit plan, evidenced by falling participation rates, led in 1980 to Congressional revision of the program to make benefits more generous. The Reserve retirement program has been the subject of reform proposals from both internal Defense Department working groups and external critics. Extension of separation pay to involuntary separatees from active enlisted service has been recommended by at least one recent study group, as has revision of the formula for computing separation pay.

Most attention, however, has focused on the nondisability retired pay program for active-duty personnel. This program is the largest component of the overall estate program in terms of both number of beneficiaries (1.1 million out of a total 1.4 million retirees) and cost (an estimated \$13.4 billion for fiscal year 1984, 81 percent of the \$16.5 billion total cost of military retirement). Moreover, since the formula for nondisability retirement benefits is used to calculate disability retirement, Reserve retirement, and survivor benefits, the costs of these programs depend on nondisability retirement. Perhaps most important, the nondisability retirement program is often criticized on equity grounds, since beneficiaries usually begin to receive annuities at much earlier ages than most civilian members of the labor force.

For these reasons, this report is limited to an analysis of nondisability retirement pay. As is common in discussions of this program, it is referred to here as the military retirement system.

Nor does this study assume any changes in the rest of the military compensation system. In addition to retirement, military personnel receive a wide variety of pays. All receive a cash "basic pay" determined by their rank and length of service. Some also receive cash allowances for housing and food, which are exempt from federal taxes; others benefit from housing and food provided by the military. Selected numbers also receive additional pays or bonuses aimed at retaining personnel with special skills. Because interest in recent years has focused on retirement, and in order to limit the scope of this study, the analysis in the remainder of the study assumes that these pays and allowances remain roughly at their current levels in real terms (that is, after adjustment for pay raises designed to keep pace with pay increases in the private sector).

This study begins with a brief summary of the provisions of the military retirement system and its legislative history. Chapter II discusses some of the rationales that have been advanced for the current system and some reasons for changing it: cost, possible adverse effects on force management, and inequities in comparison to other systems. In Chapter III the results of a number of recent studies of military retirement are sum-

marized. The chapter includes a discussion of the ways that most of these studies advocate modifying the current system. Chapter IV sets forth several recent retirement modification proposals and analyzes their costs and effects on military manpower. The chapter concludes with a discussion of other issues that the Congress may wish to consider in evaluating modification of the military retirement system.

## THE CURRENT MILITARY RETIREMENT SYSTEM

Following are the major features of the current retirement system:

- o Eligibility for military retirement benefits only after the completion of 20 years of service;
- o An immediate, permanent annuity upon retirement equal to 2.5 percent of the product of years of service (adjusted for fractional years) and basic pay, to a maximum of 75 percent of basic pay for members retiring after 30 years of service;
- o Computation of annuity based on member's final basic pay for those entering service prior to September 8, 1980 (average of high three years' basic pay otherwise);
- o Adjustment of annuity annually by the change in the Consumer Price Index (CPI) in the preceding year (except that in fiscal years 1983-1985, the adjustment is delayed and limited to a portion of the increase in the CPI for retirees under age 62); and
- o No reduction of military retired pay when the member becomes eligible to receive Social Security.

The current statutory service requirement for military retirement is 30 years of active duty. Nonetheless, members and retirees frequently refer to the current system as the "20-year retirement" system. Even though members do not have the right to retire after 20 years—but only to request retirement and transfer to Reserve status—in practice, virtually all requests for "early" retirement are granted routinely. The 30-year statutory requirement remains the basis for the notion that a "full" military career is 30 years.

In practice, the average enlisted retiree separates from service at age 42, after 22 years of active duty. For officers, the average retirement age is 46, with 25 years of service. For both groups, the most frequent or "modal" retirement point is after the completion of 20 years. As of the end

of fiscal year 1982, average retired pay for enlisted personnel was \$9,349, and that for officers was \$21,189. Officers and enlisted members alike typically receive retirement pay for an average of 35 years. Because these annual payments are received for long periods, their aggregate value is quite substantial. For example, the lump-sum equivalent of retired pay for an E-7 retiring on April 1, 1983, after 21 years of service was \$247,652 (in 1983 dollars, assuming a 1 percent real interest rate). The comparable amount for an O-5 who retired after 23 years was \$579,435. <sup>1/</sup>

### LEGISLATIVE HISTORY

The current structure and level of retirement benefits are the result of more than a century of modification of the retirement system. In large part, these changes have reflected changing social attitudes (for example, toward the provision of old-age income security) and concerns about retaining capable military personnel. An 1861 statute authorizing retirement pay for all officers voluntarily retiring from service was the initial antecedent of today's military retirement system. Before that, retired pay was authorized only for certain Naval officers separated from service involuntarily; all others served until death or voluntarily separated without pay. The 1861 act was followed in 1885 by one providing for Army and Marine Corps enlisted members' retirement, and in 1899 by a similar statute applying to Navy enlisted personnel.

The amount of retired pay under these acts depended on the member's rank or grade, and also on the nature of the military compensation system. As this system changed from "pay and rations" to a salary system and then back to one that provided active-duty pay supplemented by allowances, the method of calculating retirement pay also had to change. A 1916 statute that established retirement pay as a multiple of active-duty pay and length of service created the formula by which retirement pay is still determined today, 2.5 percent of final basic pay for each year of active duty. (Under a statute enacted in 1980, however, retirees who entered active duty after September 7, 1980, will have their retirement benefits computed on the basis of the average of their highest three years' basic pay, rather than final basic pay.)

Since 1916, major changes in the military retirement system have focused primarily on the length of service needed to become eligible for re-

- 
1. Office of the Actuary, Defense Manpower Data Center: DoD Statistical Report on the Military Retirement System, FY 1982, p. 240.



retirement benefits. Different requirements applied to the different services until after World War II, when officers and enlisted members in all services were finally allowed to retire voluntarily after the completion of 20 years of active duty. Until then, the length-of-service requirement had been as high as 45 years (for Navy officers, before 1908) and as low as 15 years for Army officers and 16 years for Navy and Marine Corps enlisted personnel. Age, as distinct from length of service, has never been the sole criterion for eligibility for retirement benefits, although at times in the past retirement was permitted at maximum age if the required length of service had not been reached. Annuity formulas such as those now applied to civil service retirees (for example, retirement eligibility at age 55 with 30 years of service, or at age 60 with 20 years) have never been used for military personnel.

Service personnel have participated in the Social Security system ever since the 1946 Social Security amendments extended some benefits to military personnel and their survivors. Full participation began after a 1956 statute stipulated that service personnel must pay Social Security contributions (effective January 1, 1957). Service members are generally entitled to the same benefits and pay the same taxes as other employees covered by Social Security. One difference is that, for purposes of calculating benefits, military personnel are granted a noncontributory wage credit of up to \$1,200 per year, designed to compensate for the fact that military quarters and subsistence allowances are not included in the total wages used to determine eligibility for Social Security benefits. The cost of benefits related to this noncontributory wage credit is reimbursed from general federal revenues.

Another aspect of the retirement system that has changed over the years is the adjustment of benefits for retirees. Legislative adjustments in retirement benefits date from 1870, when the principle of "recomputation" was established. This provision stipulated that retirement benefits would be adjusted whenever active duty pay was changed, so that current active-duty pay for the retiree's terminal pay grade would provide the basis for calculating his current retired pay. Recomputation was the basis for adjustments in retired pay until 1958, and in 1963 retirement benefits were indexed to the Consumer Price Index. This provision still applies, although for retirees under age 62 it was modified slightly in 1982 to delay and limit annual adjustments to a portion of the increase in the CPI during fiscal years 1983-1985. After 1985, under current law, the retirement system will return to full annual indexing.

---

## CHAPTER II. ISSUES CONCERNING THE CURRENT MILITARY RETIREMENT SYSTEM

---

While the services generally feel that the military retirement system is vital to meeting their manpower needs, several factors have drawn critical attention to the system during the past two decades. First, military retirement is expensive both in absolute outlays and as a percentage of the total cost of military personnel (pay, allowances, special and incentive pays, accession and training costs, and retirement). Moreover, both figures are projected to grow in the future, although at slower rates than in the recent past.

Such high costs may be justified by the need to retain skilled mid-career personnel while maintaining a "young and vigorous" force, or as partial compensation for the rigors of military service. But changes in the manpower needs of the military services have called in question the effectiveness of the retirement system as a recruiting and retention incentive for the personnel whom the services need most. In addition, it is often charged, the retirement system creates personnel management problems for the military services.

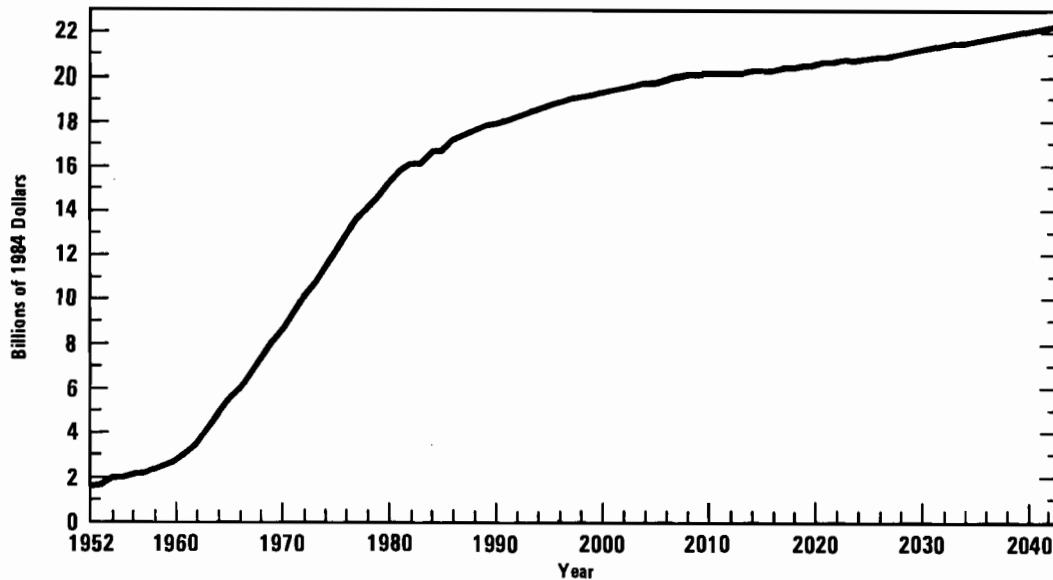
Finally, with the movement toward pay comparability between military and civilian sectors have come questions about the equity of providing military personnel with retirement benefits more generous than those available for workers in other sectors of the economy. These questions, and other pros and cons of the military retirement system, are discussed in turn in this chapter.

### COST

Outlays for military retirement through fiscal year 1984 represent benefits paid to current retirees, rather than payments into an account that will eventually be paid to those now on active duty. It is the growth in outlays that has fueled much of the criticism of the military retirement system. To illustrate this growth, consider that in 1963 military retirement outlays for the overall military retirement program were \$4.2 billion (in 1984 dollars, using the Defense Department deflator for military retired pay). By 1984, outlays had risen to \$16.5 billion, an increase of 290 percent.

Continued growth is projected into the future. CBO estimates that by the end of the century retirement costs will have risen to \$19.4 billion (in

Figure 1.  
Retirement Outlays



SOURCE: Department of Defense.

1984 dollars), and will continue to increase to \$22.4 billion by 2043. While constant-dollar growth will be slower through the year 2000 (1.1 percent a year) than since 1963 (7.0 percent a year), it will still continue. Figure 1 displays both the history of military retirement outlays and a projection of future outlays in constant dollars.

A number of factors account for the past growth in retirement outlays:

- o Adjustments in retired pay tied to changes in military basic pay (recomputation before 1958, and annual military pay raises since 1963);
- o Increases in the retiree population as a result of previous force levels (especially during World War II and the Korean War); and
- o Faster increases in retired pay than in the Consumer Price Index because of the "1 percent kicker" that was in effect from 1969 to 1976.

In addition, future growth in outlays will occur because of past and projected increases in life expectancy, which will cause benefits to be paid for longer periods. Changes in manpower levels and composition or in compensation policies could also affect future outlay levels, though the projections in Figure 1 assume no changes from current overall force strength.

The growth in retirement outlays described above does not reflect changes in the value of the retirement system for personnel now in service. Instead, it shows only the level of future payments to personnel after they have retired under the present system. In analyzing the effects of changes in the system, it is preferable to focus on the cost of benefits that will be earned after the changes are made.

Such prospective costs are reflected in "accrual charges" or "entry-age normal" costs. Accrual charges, usually expressed as percentages of salary or basic pay, represent the amounts that would have to be set aside to build a fund large enough to pay future retirement benefits earned by current service. Beginning with fiscal year 1985, budget authority and outlays for military retirement in the defense budget will be presented on an accrual basis, meaning that they will reflect the cost of future benefits earned by current service. Actual federal outlays, however, will continue to reflect the cost of current benefits earned by past service. <sup>1/</sup> Thus this accounting change will not alter the pattern of growth in federal outlays for retired pay.

In the defense budget, however, accrual accounting should stabilize retirement costs in relation to other personnel costs, unless there are policy changes. In the defense budgetary function, budget authority and outlays for the military retirement system under accrual accounting will be dependent on current force size and benefit provisions, and on projections of economic assumptions and demographic factors such as separation rates from service and mortality rates. Projected increases in life expectancy, one of the factors responsible for the future growth in benefit payments to retirees, will be incorporated in the calculation of the accrual charge, as will other similar considerations. Thus, in the absence of changes in policy variables that affect retirement costs, there is little reason for accrual costs to increase in relation to other defense personnel costs.

The change to accrual accounting, however, will alter the budgetary consequences for the defense budget of a change in retirement policies that results in savings. Under current accounting practices, changes in the level of retirement benefits for those currently in active service would influence

- 
1. Congressional Budget Office, Accrual Accounting for Military Retirement: Alternative Approaches (Staff Working Paper, July 1983).

costs only prospectively. No savings would be realized in the current budget assuming current retirees were protected from change (that is, "grandfathered"). Accrual accounting enables the prospective savings from retirement change to be reflected in the current budget, even if all current retirees and active duty personnel are grandfathered. Grandfathering thus becomes a separate issue under accrual accounting, rather than an integral part of the debate over modification of the military retirement system.

Although concern over the size of federal deficits may cause Congressional attention to focus increasingly on the high cost of the military retirement system, cost alone is not a sufficient reason for modifying military retirement. Retired pay is one of the principal incentives for career personnel to remain in service. Any assessment of the effects of changing the retirement system must also include a discussion of the system's role in meeting the services' needs for military personnel.

## MANPOWER REQUIREMENTS

The military services historically have been among the strongest supporters of the current retirement system. In part this is because they believe it to be a major factor in meeting personnel objectives, and feel that any less generous alternative might be less effective. In addition, retired pay is often defended as a means of providing equitable treatment for service members in comparison to their civilian counterparts.

### Desire for a Youthful Force

Military personnel requirements currently call for approximately 2.1 million officers and enlisted members on active duty. (The Administration's recent projections envision a modest growth to perhaps 2.25 million by 1988.) Table 1 shows how these active-duty personnel currently are distributed according to length of service. This distribution closely approximates the services' desired profile as shown in Table 2. <sup>2/</sup>

Table 1 shows that the largest single group, especially on the enlisted side, consists of "first-term" personnel with fewer than four years of ser-

- 
2. Office of the Secretary of Defense, Fifth Quadrennial Review of Military Compensation, Vol. I: Uniformed Services Retirement System (January 1984), p. XI-20. (As of the publication date of this CBO study, the QRC report had been submitted to the Secretary of Defense and was under review within the Administration.)

TABLE 1. MILITARY FORCE PROFILE (As of September 30, 1982)

Category	Length of Service in Years	Enlisted Personnel		Officers		Total Force	
		Number	Percent	Number	Percent	Number	Percent
First Term	0-4	977,235	54.2	77,694	26.7	1,054,929	50.3
Journeyman	5-8	364,956	20.2	55,708	19.1	420,664	20.1
	9-12	186,923	10.4	43,500	14.9	230,423	11.0
Mid-Career	13-16	121,089	6.7	44,623	15.3	165,712	7.9
	17-20	93,017	5.2	35,678	12.3	128,695	6.1
Senior Career	21 and over	61,041	3.4	34,044	11.7	95,085	4.5
All Personnel		1,804,261	100.0	291,247	100.0	2,095,508	100.0

Source: Defense Manpower Data Center.

TABLE 2. CURRENT FORCE OBJECTIVES <sup>a/</sup>

Length of Service in Years	Enlisted Personnel		Officers		Total Force	
	Number	Percent	Number	Percent	Number	Percent
0-4	1,016,400	56.3	84,700	31.4	1,101,100	53.1
5-10	407,300	22.6	81,600	30.3	488,900	23.6
11-15	177,500	9.8	45,100	16.7	222,600	10.7
16-20	147,500	8.2	35,400	13.2	182,900	8.8
21 and over	56,400	3.1	22,400	8.4	78,800	3.8
Total	1,805,100	100.0	269,200	100.0	2,074,300	100.0

SOURCE: Fifth Quadrennial Review of Military Compensation, Vol. I, pp. XI-5, XI-6.

- a. Steady-state force profile desired by the services, reflecting management responses to legal and other current grade constraints on the aggregate force structure.

vice. These comprise more than half of the enlisted personnel and over a quarter of the officer force. Career personnel with four or more years of service make up 49.6 percent of the force. Most of the career personnel are either journeymen (with 4 to 12 years of service) or mid-career personnel (with 12 to 20 years of service). Few career personnel have more than 20 years of service.

Indeed, a key aspect of Table 1 is the small number of personnel with more than 20 years of service. In the enlisted force, fewer than 4 percent have more than 20 years of service. Among officers, the comparable figure is under 12 percent. As Table 2 shows, these small percentages of senior personnel are about what is desired by the services.

Since military personnel typically enter service at about age 19 for enlistees and 22 for officers, the force profiles imply that the services want very few enlisted members over the age of 40 and few officers older than 45. The quest for what the services term "youth and vigor" requires separating personnel from service long before they would otherwise be prepared to leave. The retirement system--with its immediate benefits after 20 years--helps the services to maintain a young and vigorous force by encouraging many members to retire voluntarily at still-youthful ages and permitting the services to separate others involuntarily without imposing financial hardship. This also enables the promotion of more junior members to higher ranks, thus holding out promotion opportunity as an incentive to remain in the military.

#### Need to Retain Mid-Career Personnel

Military leaders also claim that the retirement system is important in retaining skilled "mid-career" personnel (that is, those with between about 12 and 20 years of service). Certain factors often make a transfer from military to civilian life attractive before the completion of 20 years of service. One factor is that the frequency of promotions typically slows dramatically after 6-10 years of military service, with the result that members may feel they are not being rewarded for improvements in skill or productivity. In addition, family separations and relocations become increasingly onerous as service members marry, have children, and watch their children grow into their teens. In contrast to the military life of relatively slow professional advancement and constant personal upheaval, the career rewards and stable family life-styles of the civilian world become increasingly attractive to many members.

By failing to provide or "vest" any benefits until members complete 20 years of service, the military retirement system in effect "locks in" mem-



bers once they approach that point. Indeed, as Table 1 shows, relatively few enlisted personnel and even fewer officers leave the service after about 12 years of service. Soon after passing the 20-year threshold, however, most members choose to leave service, recognizing that opportunities for further advancement are much more limited in military service than in the civilian sector. The retirement system encourages such career changes and thus guarantees a supply of trained, skilled personnel at mid-career levels while ensuring that few stay for long careers.

### EQUITY ISSUES

The key criterion for judging the adequacy of military retirement is its ability to meet the services' personnel objectives at a reasonable cost. But defenders of the system often justify its generous benefits on the basis of the sacrifices endured by service members who remain in uniform for "full careers" rather than leaving for civilian life.

#### The "X-Factor"

The conditions of employment in military service differ from those in civilian occupations in many ways. For example, military personnel are subject to a different juridical system, their personal liberties are sometimes circumscribed, they may be subject to recall to active duty after retirement, they may not always choose their duty locations or freely separate from service, and of course they are subject to the risks of combat. Military service may also be more "arduous" than many civilian occupations. Finally, the frequent relocations that characterize most military service often impose financial sacrifices on members in the form of travel costs, reduced opportunities for spouses to work, or inability to build equity in a home. These differences, sometimes dubbed the "X-factor" in discussions of military compensation, may justify higher compensation for military than for otherwise comparable civilian jobs. The retirement system, it is claimed, is an important way to compensate for the "X-factor."

The "X-factor," however, does not take into account the positive values of military service. While the risk and rigor of military life probably exceed that of most civilian occupations, not all military members face them equally. And the financial sacrifices are offset, in whole or in part, by prerequisites such as health benefits, commissaries and post exchanges, low-cost social and recreational facilities, and loan programs.

Moreover, even if the premise of the "X-factor" argument is valid, it means only that military compensation must be more attractive than civil-

ian compensation to encourage enough people to elect military careers. Stated in these terms, it is clear that the "X-factor" simply explains some of the difficulty of meeting military manpower objectives, the key criterion for judging retirement. It does not justify retention of the current military retirement system in preference to alternative systems or other policies that would help achieve manpower objectives.

### Second-Career Income Loss

The great majority of military retirees enter the civilian labor force after they separate from service. Because their military experience is not readily transferable to many civilian jobs, retirees may earn less in the civilian sector than they would have earned if they had not devoted 20 or more years of their working lifetimes to military service. This second-career penalty may be imposed during the balance of the military retiree's work experience as well as during old age. The immediate annuity feature of the military retirement system, which results in the payment of benefits as early as age 38, can be viewed in part as compensation for retirees' loss of civilian earning power. 3/

The issue of second-career income loss has been studied repeatedly. In general, the studies have found that military retirees earn less in post-retirement civilian occupations than their equivalent civilian age-experience cohort. On the basis of a 1966 survey of military retirees, the First Quadrennial Review of Military Compensation (1969), for example, estimated annual second-career income losses in 1968 ranging from \$706 or 9 percent of civilian income (for an E-6 who retires after 20 years) to \$15,747 or 58 percent (for an O-6 retiring after 30 years). 4/ The second-career penalty varied with age at retirement, a conclusion supported by the President's Commission on Military Compensation (1978), which also agreed that officers typically face larger losses than enlisted retirees. 5/

- 
3. For the typical officer and enlisted retiree under the current system, annuities begin at \$18,900 and \$8,900 respectively. See Tables 6 and 7.
  4. Department of Defense, Modernizing Military Pay: Report of the First Quadrennial Review of Military Compensation, Vol. V: The Military Estate Program (Appendices) (January 15, 1969), p. II-9.
  5. Report of the President's Commission on Military Compensation (April 1978), p. 36.

More recent studies have reached similar but often more limited conclusions about the importance of second-career income loss. In a 1979 study, Cooper found that retirees experienced only a temporary loss compared to the civilian cohort, that the duration of the loss varied from a few months to a few years, that officers were more disadvantaged than enlisted retirees, and that age and military occupation were important factors in the size of the retiree's civilian penalty. 6/

Danzon, in a 1980 paper, found that weekly wage rates of retirees were 10-20 percent lower than those of veterans who separated from service before completing "full careers," but that roughly half of the differential was attributable to a voluntary choice to work less in favor of more leisure time. Thus, she concluded, a residual differential of less than 10 percent in the first years after retirement is probably an upper bound on the second-career earnings loss. 7/

In updating Cooper's 1979 study for the Fifth Quadrennial Review of Military Compensation, the accounting firm of Coopers and Lybrand found that officer and enlisted retirees alike earned less in their second careers than their counterparts who spent their entire careers in civilian life. 8/ The gap for officers averaged \$2,000-\$3,000 (7-10 percent of average civilian earnings) and showed little tendency to shrink with time after retirement. For enlisted personnel, the initial second-career income loss averaged \$7,000 (24 percent of average civilian earnings) one year after retirement and diminished only slightly thereafter. The study shed no light on the question of how much of the earnings loss was the result of voluntary behavior (choice of location, industry, frequency of employment, etc.). For both groups of retirees, however, total second-career income (including military retired pay) exceeded the average income of counterpart civilian workers.

These analyses leave the size and duration of the income loss open to question. Granting its existence, one may still doubt whether second-career income loss justifies maintaining the current military retirement system. The First Quadrennial Review, addressing this issue, concluded that it does not; the immediate annuity should not be the sole means of dealing with

- 
6. Richard V. L. Cooper, Military Retirees' Post-Service Earnings and Employment (R-2493-MRAL, The Rand Corporation, February 1981), ch. 3.
  7. Patricia Munch Danzon, Civilian Earnings of Military Retirees (R-2353-MRAL, The Rand Corporation, March 1980), p. 37.
  8. Coopers & Lybrand, Military Retirees' and Separatees' Post-Service Earnings (unpublished, January 1984), pp. 38-46.

income loss, and the income loss should not be part of the calculation of the annuity.<sup>9/</sup> The reasons for this recommendation were the variance of income loss among retirees and the likelihood that the magnitude of the income loss would change over time. Although more recent work has refined the estimates of income loss made in the original study, the conclusions of the initial effort are as valid now as when they were first offered.

Nor does the second-career income loss argument justify retention of the current system as necessary for recruiting or retaining needed personnel. It is difficult to argue that second-career income loss accounts for the problems of meeting manpower objectives when neither recruits nor even reenlistees have good information about the losses they will experience when they finally leave service. Measured against the key criterion--achieving manpower goals--the claim of second-career income loss has no bearing on the question of whether to retain or modify the current retirement system.

### Other Equity Considerations

Several other equity arguments have been used in the past by defenders and critics of the military retirement system. Defenders contend that current retirees and service members have an implicit contract with the government protecting their right to benefits under the current retirement system--that the system in place at the time of enlistment (or even at the time a recruit signs a contract committing him to enter service at some future date) is an integral part of the terms of service offered by the government. But proponents of changing the system note the absence of any explicit legal contract and point to many changes in military compensation that have worked to the advantage of those currently in service or retired (for example, annual indexing of retired pay and annual adjustment of active-duty pay to reflect changes in private-sector wages and salaries).

Those who would change military retirement sometimes argue that the current system is inequitable for two reasons. First, only a small fraction--12 percent of active-duty recruits--ever become eligible to receive retired pay. Thus, the retirement system results in large benefits being paid to only a small minority of those who serve in the armed forces, while the great majority of those who serve receive no retirement benefits at all. Second, they argue, it is inequitable for the taxpaying public to have to bear the costs of military retirement benefits considerably more generous than those paid by even the very best private-sector plans. Defenders of the current system counter both arguments by noting that the military personnel system

---

9. Department of Defense, Modernizing Military Pay, p. II-14.

operates differently from those of private-sector firms or government civilian agencies, and that a sharply tapered benefit structure may be required by military manpower needs.

Each of these equity arguments has a germ of validity, but in each case the basic rebuttal is the same. The underlying rationale for the military retirement system lies in its contribution to meeting manpower objectives. Changes in retirement are not justified if they prevent attainment of these goals, and retention of the current system is not justified if manpower goals could be adequately met under a less costly system. Equity considerations, whether raised to defend or attack the current system, are at most of secondary importance.

#### MANPOWER PROBLEMS UNDER THE CURRENT RETIREMENT SYSTEM

The services usually favor the current military retirement system because it helps meet their desire for a youthful and vigorous force and because it helps retain key mid-career personnel. But the military retirement system does not provide equally strong retention incentives for all personnel. Instead, the availability of retirement pay after 20 years of service, which "locks in" service members from around the 12th year of service through the 20th year, causes a number of personnel and retention problems.

##### Little Incentive for Long Careers

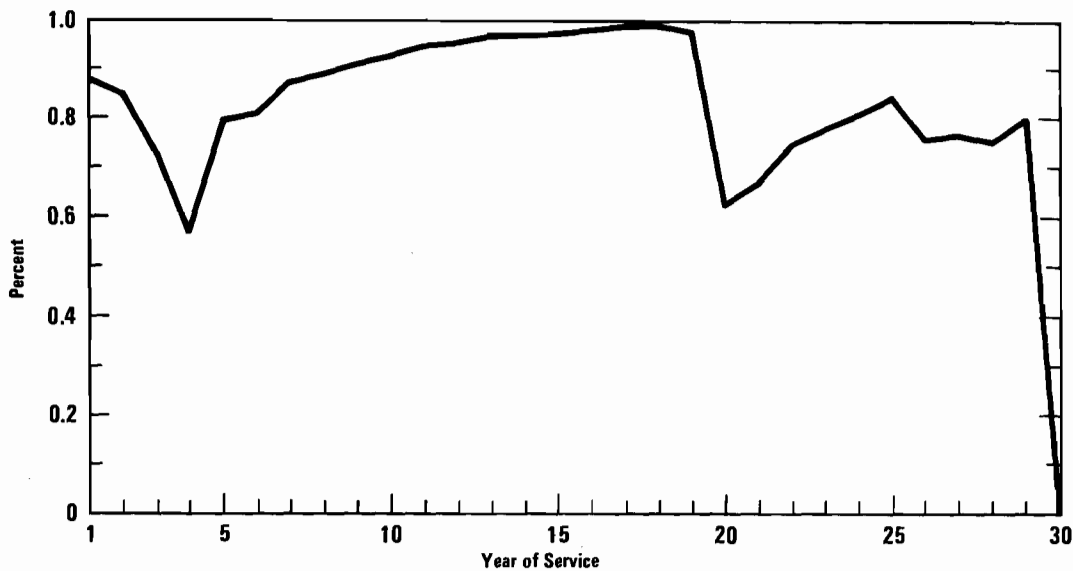
Under the current retirement system, each year beyond 20 that members remain in service means one less year in which they can receive retired pay. Although annual retired pay continues to rise with additional service (because of pay increases related to time in service, promotions, and the 2.5 percentage-points-per-year multiplier), the apparent forfeiture of retired pay serves to increase rather than offset potential retirees' incentive to leave after completing 20 years of service. This problem has been described as "working for half pay" once 20 years of service have been completed.

The description is somewhat misleading. According to tabulations performed by the staff of the Fifth Quadrennial Review of Military Compensation, lifetime retired pay actually increases for most officer and enlisted personnel who remain beyond the 20-year period.<sup>10/</sup> Nonetheless, it is

---

10. Tom Philpott, "Research of Pentagon Pay Study Panel Proving Two Retirement 'Beliefs' False," Navy Times (March 21, 1983), p. 40.

Figure 2.  
Continuation Rates for Enlisted Personnel



NOTE: Continuation rates measure the fraction of members in each year-of-service cohort who remain in service for the next year.

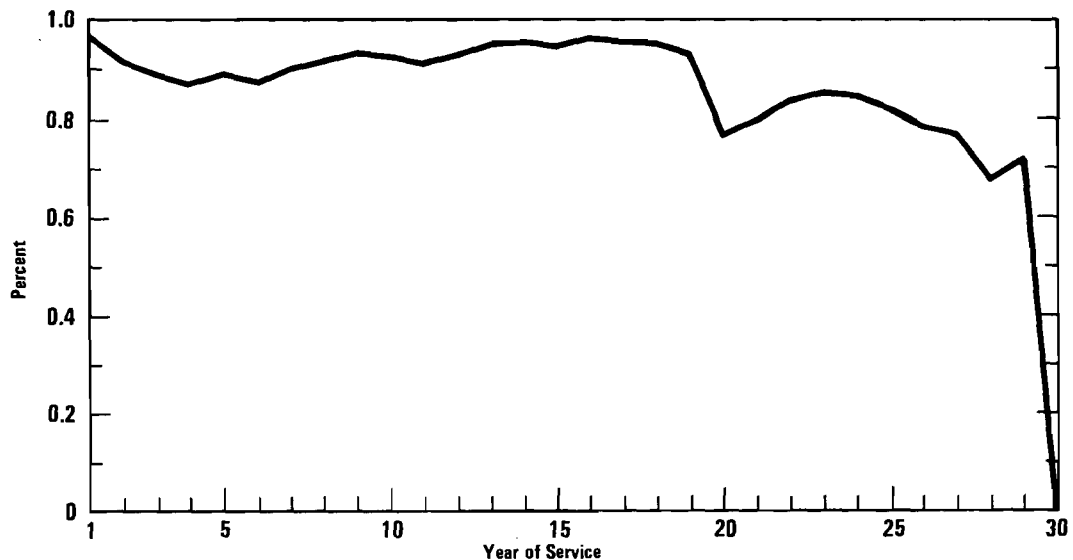
SOURCE: Congressional Budget Office, Baseline Continuation Rate Projection.

clear that the structure of the military retirement system makes it harder for the services to keep members beyond 20 years of service. Figures 2 and 3, which show enlisted and officer continuation rates for all four services, illustrate this problem with the significant decline in retention beyond the 20-year point. <sup>11/</sup>

It is difficult to assess the importance of this phenomenon. As Table 1 showed, relatively few personnel (3.4 percent of the enlisted force, 4.5 percent overall) remain beyond 20 years; thus, changing their numbers by even substantial percentages would not affect overall manning levels very significantly. On the other hand, the personnel affected by the separation incentive are the most highly skilled and senior commissioned and noncommissioned officers, and therefore are likely to be important far beyond their numbers.

- 
11. Continuation rates measure the fraction of members in each year-of-service cohort who remain in service for the next year.

Figure 3.  
Continuation Rates for Commissioned Officers



NOTE: Continuation rates measure the fraction of members in each year-of-service cohort who remain in service for the next year.

SOURCE: Congressional Budget Office, Baseline Continuation Rate Projection.

The services' desire for a "youthful and vigorous" force probably could be satisfied even if more service members remained beyond the 20-year point. Currently, those leaving the military after 20 years of service are in their early 40s. Keeping more personnel for 25 or even 30 years of service would still mean that most personnel leave the military by about age 50. A study for the President's Commission on Military Compensation found that severe age-related decline in physical and mental capacity generally did not appear until after age 50.<sup>12/</sup> If the services screened personnel to ensure that only the physically fit continued in service, there should be no decline in the physical ability of the armed forces even if average career lengths were to increase.

- 
12. J. F. Parker, Jr., D. G. Christensen, and M. G. Every, "A Review of the 'Youth and Vigor' Concept and its Importance in Military Occupations," in Supplementary Papers of the President's Commission on Military Compensation (April 1978), p. 30.

After considering these pros and cons, all nine of the major studies of the military retirement system in the past 15 years—including five done by the Department of Defense—have recommended changes in the military retirement system that would tend to increase incentives for longer careers. Some studies recommended changes in the annuity formula to increase the amount of retired pay more rapidly for members who complete longer terms of service. Others recommended that lump-sum payments be substituted for annuities to provide members with benefits of equal value whether they remain in service or separate. Either of these approaches would help retain the services' most highly skilled personnel at points in their careers where the incentives to separate are greatest.

#### Difficulty of Separating Personnel with Fewer Than 20 Years of Service

Because military personnel receive almost no benefits if they leave before the completion of 20 years—resulting in the loss of several hundred thousand dollars or more in retired pay, as mentioned in Chapter I—there is the danger that some may remain in service beyond the point at which they are needed to meet personnel management objectives. The presence of unnecessary personnel detracts from productivity, readiness, and mission capability.

The services are aware of this problem, and have the option of separating such members involuntarily up to about 18 years of service. They are reluctant to use this option, however, because of the loss of retirement pay it imposes, particularly for enlisted personnel. Officers are eligible for at least partial compensation in the form of nondisability separation pay that can amount to as much as \$30,000, an element of the military estate program cited in the preceding chapter. In 1983 only about 0.5 percent of officers with over ten years of service, and only 1.2 percent of enlisted members, were separated involuntarily for other than disciplinary reasons.

The importance of this problem is difficult to quantify because of the lack of well-defined productivity measures for most military occupations. The services appear to value the "lock-in" effect on the personnel they want to retain more than they are distressed by the problem of keeping some members whom they would prefer to separate. Indeed, as was noted above, the current system appears to be generally compatible with the services' personnel objectives. This is not the view taken by most studies of the military retirement system, however. Eight of the nine past studies have recommended changes that would make it easier to separate personnel involuntarily when they have fewer than 20 years of service. Changes recom-



mended by the studies include increases in separation pay, limited retirement benefits (usually deferred until age 60 or later) for those leaving with fewer than 20 years of service, or other formulas for computing retired pay.

#### Little Incentive for Retention Early in a Career

There is evidence that the military retirement system contributes little to the incentive to remain in the military early in a career. For example, a Department of Defense personnel survey in 1976 found that only about one-third of all enlisted members with fewer than eight years of service considered retirement a "strong" incentive to make a career of military service. An earlier study by the Air Force Human Resources Laboratory found that officers and enlisted members with fewer than five years of service ranked the retirement system least important of nine alternatives as a factor in their retention decisions. <sup>13/</sup>

These findings are plausible intuitively. Young people typically change jobs several times before selecting a career, and they do not ordinarily make employment decisions on the basis of a benefit that will not be received for at least 20 years.

Members early in their careers--that is, journeymen with between about 4 and 12 years of service--make up 60 percent of all career personnel and so are critical to expanding the size of the career force. Although the retirement system does not exert a strong pull for these personnel, other recruiting and retention programs such as enlistment and reenlistment bonuses are known to be quite effective. It is likely that the Defense Department will have to allocate additional resources to these programs through the early 1990s as the pool of youth eligible for military service declines. The current retirement system may be of only modest help in retaining these personnel in service.

#### Compatibility with Trends in Requirements

The military services have increased their reliance on career personnel in recent years, as shown in Table 3. In part, this trend has reflected the greater willingness of members to remain in service owing to slack labor markets in the civilian sector. But the services' increasing use of experi-

---

13. President's Private Sector Survey on Cost Control, Vol. VI, Management Office Report on Federal Retirement Systems, p. 37.

TABLE 3. CAREER FORCE AS A PERCENT OF TOTAL ENLISTED STRENGTH, SELECTED FISCAL YEARS

Service	1971	1976	1981	1987 (Projected)
Army	24	36	42	43
Navy	36	42	43	49
Marine Corps	23	26	30	30
Air Force	48	53	51	51
DoD	33	41	44	46
Number (Thousands)	765	735	781	898

SOURCE: Military Manpower Task Force, A Report to the President on the Status and Prospects of the All Volunteer Force (October 1982), p. III-13.

NOTE: Career force is defined as those with four or more years of service.

enced personnel is also a result of the trend toward increasingly complex and technically demanding weapons and support systems.

Not all services have been equally able to meet their needs for career members. The Army and Marine Corps have been least affected by shortages of career personnel, although they have not escaped shortages in particular occupational specialties. The Air Force, with the most favorable overall personnel situation, has at times had difficulty in retaining officers in some specialties (notably, pilots and engineers) and in keeping enlisted members in some high-technology fields. The Navy has had more difficulty than any other service in meeting its needs for mid-career personnel.

The present military retirement system is of limited value at best in helping the services to solve these problems. Its greatest impact on personnel management is to increase the number of mid-career personnel--at 12 years to 20 years of service--who stay to complete 20 years but separate soon after. The current system is not likely to be of major help in meeting the services' expanding needs for skilled, highly trained, journeymen personnel with about 4 to 12 years of service. At best, it may contribute to manpower goals by discouraging separations among mid-career members.

The services see other benefits in the current retirement system, including the locking in of mid-career personnel. This latter benefit is outweighed by the fact that 60 percent of the career force is made up of journeymen early in their careers. Most of the major studies of the military retirement system have recommended changes that would tend to increase the incentives for these journeymen to remain in service longer.

#### COMPARISONS WITH OTHER SYSTEMS

Although military service is substantially different from civilian employment, comparisons are often made of the costs of retirement systems in the two sectors. It is generally agreed that the military retirement system provides more generous benefits than are available in most non-military plans. In the past, the argument has been made that this differential was needed to offset the higher pay in comparable civilian jobs. The increases in military pay in 1972-1973 that marked the beginning of the All-Volunteer Force closed the gap between military and civilian pay and eliminated this rationale for a relatively generous military retirement system. The question now is whether military retirement is excessively generous in comparison to other retirement plans.

The key criterion for judging military retirement--its ability to meet military manpower requirements at reasonable cost--has been addressed in the discussions above. This section considers comparisons with private-sector plans, plans within the public sector, and benefits offered by other countries' military establishments. A summary of findings appears in Table 4.

#### Comparisons with the Private Sector

An extensive set of comparisons between military and private retirement systems was made recently by the President's Private Sector Survey on

TABLE 4. LIFETIME RETIREMENT EARNINGS OF TYPICAL U.S. MILITARY RETIREES UNDER VARIOUS RETIREMENT PLANS (In thousands of 1983 dollars) a/

	<u>20-Year Retiree</u>		<u>30-Year Retiree</u>	
	Enlisted	Officer	Enlisted	Officer
U.S. Military Plan	329	701	481	973
Federal Service Protective Service Plan	302	688	541	1102
Federal Air Traffic Controllers Plan	302	688	434	886
Foreign Military Plans				
Australia	325	645	442	858
Canada	283	560	413	816
France	264	303	385	778
Israel	264	560	385	778
Soviet Union	b/	b/	560	1088
U.K.	b/	897	280	827
West Germany	255	500	432	807

SOURCE: General Accounting Office.

- a. Estimates are in undiscounted constant 1983 dollars with no allowance for inflation. Social Security, national insurance, or other retirement benefits are not included.
- b. Twenty-year retirement not permitted.

Cost Control (PPSSCC). 14/ One conclusion was that in terms of accrual cost (actually, retirement cost as a percent of payroll), a typical private plan costs 6 percent of salary while the military retirement system has a normal cost of nearly 51 percent of military basic pay or 35 percent of the

14. Report of the President's Commission on Military Compensation, pp. 50-51.

military "salary." (Salary is defined as Basic Military Compensation, which is the sum of basic pay, basic allowances for quarters and subsistence, and the tax advantage that accrues because these allowances are exempt from federal tax.)

This comparison is incomplete because it neglects the accrual of Social Security benefits by military and private-sector personnel. If employers' Social Security contributions are added to the comparison, the normal cost of the military system becomes 41 percent of salary and that of "good" civilian plans rises to 12 percent.

Further adjustments might be made in this comparison. Social Security costs for military personnel are overstated slightly because only the basic pay component of military compensation is covered. Demographic differences between military and civilian work forces (such as life expectancy) affect the value and hence the cost of annuity programs. Inclusion of these factors lowers the normal cost of the military retirement system (including Social Security) to 40 percent and raises that of the "good" private-sector plans to 14 percent. <sup>15/</sup>

Other adjustments might be made to reflect further differences between military and private-sector retirement plans. For example, many private-sector employees receive deferred compensation through stock ownership or profit sharing provisions. Private-sector plans, which are free to invest trust fund balances in private securities markets, typically can earn higher yields than the real interest rate used in actuarial calculations of the normal cost of military retirement. Controlling for these factors would tend to raise the adjusted cost of private-sector plans. Conversely, the value members place on the military retirement system is enhanced by its full-COLA provision, which protects service members against the risk of inflation far better than even the best private-sector systems.

Any of these comparisons, however, leads to the conclusion that the military retirement system is substantially more generous than the best private-sector pension programs. In comparison to the average of all private-sector plans, of course, the military system would be much better still. The major reason for this sharp difference is not only the level of military retirement benefits; it is also the age at which benefits can first be received.

---

15. Department of Defense, Fifth Quadrennial Review of Military Compensation, Vol. I: Uniformed Services Retirement System (January 1984), p. VII-35.

Enlisted personnel often can begin to receive military retired pay as early as age 38, and officers as early as age 42. In practice, the median retirement age for military personnel is 43, which means that a military retiree may receive benefits for 20 years longer than a typical civilian retiree.

### Comparisons with Federal Civil Service Retirement

Military retired pay is often compared with the Civil Service Retirement System (CSRS), which in turn is sometimes called a model pension plan in comparison to most private-sector plans. Generous features of CSRS include full inflation indexing, provision for early retirement, and an employee contribution in lieu of, and somewhat greater than, a Social Security contribution. The normal cost of CSRS is estimated to be 30 percent of salary (net of employees' contributions), compared to 40 percent for military retirement (including employers' Social Security contributions). Thus the military plan is substantially more generous.

Moreover, this comparison understates the advantages offered by military retirement for persons who have retired. A much higher percentage of civilian than military personnel eventually receives retirement benefits. Only 12 percent of military recruits ever retire from active duty (although the percentage who ever receive retired pay is somewhat greater--17 percent--because many officers carry their active-service credits into the Reserves and ultimately receive Reserve retirement). In contrast, 43 percent of civil service entrants eventually become eligible for retirement benefits, including 38 percent who are eligible for immediate annuities when they separate. Thus, the lower accrual cost of 30 percent for civil service retirement (compared to 40 percent for the military system) is further attenuated by being distributed over three times as many recipients of retirement benefits. The reason for the high accrual cost of the military system is the provision that allows personnel to retire soon after age 40 with immediate annuities. Civil service retirees' average age at retirement is 61.

Just as with military retirement, moreover, the generosity of CSRS has been the source of efforts to reduce its benefits. The Administration has proposed a number of measures to increase employee contributions to CSRS, delay retirement age, and increase the annuity penalty for electing early retirement. The inclusion as of January, 1984, of new federal employees under Social Security seems certain to lead to significant changes in CSRS in the near future. Under legislation enacted in 1983, the Congress will be required to act on revising CSRS before the end of the 1985 Congressional session.

### Comparisons with Specialized Government Retirement Systems

Supporters of the current military retirement system contend that differences in personnel management objectives between the military and civil service systems--such as the desire for "youth and vigor"--invalidate comparisons between military retirement and CSRS. They argue, instead, that a more appropriate comparison is between military retirement and other plans for protective services personnel such as firemen, policemen, or air traffic controllers. The principal difference between CSRS and other federal civilian retirement plans is the provision regarding retirement age. Federal protective service officers and air traffic controllers can retire as early as age 50 with 20 years of service, compared with age 60 and 20 years of service for CSRS. Mandatory retirement age for these special employees is 55-56, roughly comparable to the age at mandatory retirement for most military personnel.

The General Accounting Office has estimated lifetime retirement earnings for a "typical" military officer or enlisted member, assuming that the provisions of the federal civilian plans applied.<sup>16/</sup> Both the protective service and the air traffic controller plans are less generous to 20-year retirees than the military plan. For 30-year retirees, GAO concluded that military retirement would be only slightly more generous than the air traffic controller plan, and that the federal protective services plan would actually pay larger benefits than the military plan.

The ability to retire early also distinguishes military retirement from state or local government plans for policemen and firefighters. Annuities typically are based on formulas similar to that of military retirement. But policemen and firemen are not allowed to retire as early. Average retirement ages for a sample of plans surveyed by GAO ranged from 50 to 53.8.<sup>17/</sup> There are also other differences. In many cases the state and local plans are contributory and provide for early vesting. Cost-of-living adjustments often are limited by statute and thus may not fully protect against inflation. Many plans do not provide for Social Security coverage.

---

16. Statement of Dr. Kenneth J. Coffey, Associate Director (Military Personnel), before the Subcommittee on Military Personnel and Compensation, House Committee on Armed Services, "How the U.S. Military Retirement System Compares With Other Systems," July 14, 1983, Appendix V, Table 2.

17. Ibid., Appendix III.

When all these factors are taken into consideration, military retirement provides somewhat more generous benefits than most state and local "hazardous duty" plans, especially for personnel who retire after 20 years of service. But there are exceptions. In some plans that permit retirement after 20 years of service, the lifetime retirement earnings as estimated by GAO differ only slightly from estimated military retired pay. And in some cases, such as Los Angeles, Seattle, and Illinois, benefits for 30-year employees exceed those under military retirement. 18/

#### Comparisons with Foreign Military Plans

Differences in personnel management practices might be expected to be minimized in comparisons between the U.S. military and the armed forces of other countries. If so, the military retirement plans of other countries might offer a useful comparison with the current U.S. military retirement system. GAO has conducted a survey of the military retirement plans of seven other countries (Australia, Canada, France, Israel, the Soviet Union, the United Kingdom, and West Germany) as the basis for just such a comparison. 19/

GAO found that military retirement systems varied widely, reflecting differences in national approaches to social insurance as well as military service. Minimum lengths of service for retirement eligibility in many other countries matched those for the U.S. military, but in many cases retirement was not permitted before age 50. Many countries provided for vesting of benefits after as few as ten years of service; member contributions; and integration with national social insurance plans. Annuities typically were somewhat lower than in the American system, but full cost-of-living adjustments were provided and survivor benefits did not require an employee contribution, as the U.S. system does.

In general, U.S. military retired pay as estimated by GAO for a typical officer or enlisted member exceeds that under the retirement systems of most other countries. This is especially true for 20-year retirees, for whom U.S. benefits almost always exceed foreign benefits. But again there are exceptions. For example, the United Kingdom's plan, which permits retire-

---

18. Ibid., Appendix V, Table 3.

19. Ibid., Appendix V, Table 1.



ment as early as age 38 for officers, is more generous for early retirees than the American one.

## SUMMARY

Evaluation of the need for modifying the military retirement system is difficult because of the system's diverse rationales and complex effects on military manpower. The pros and cons raised in this chapter can be summarized as follows.

-- The cost of the military retirement system has grown rapidly over the past 20 years, is now at a high absolute level, and will grow modestly in real terms in the future. Most of the growth in retirement outlays will continue to reflect benefits earned by past service. Modification of military retirement is attractive in part because it offers the possibility of significant dollar savings that will grow over time, but that alone is not an adequate criterion.

-- Arguments against changing the current system turn on its value in retaining current military personnel in service. Retired pay is a major factor aiding the military services in meeting manpower objectives, both by facilitating the maintenance of a young and vigorous force and by retaining skilled mid-career personnel through the completion of 20 years of service.

-- Although its ability to meet manpower requirements at reasonable cost is the key criterion in evaluating military retirement, the system has also been defended as compensating service members for the differential rigors of military life and as offsetting the second-career income loss that ex-servicemen often experience in civilian employment.

-- However, the current retirement system creates personnel management problems for the services. It spurs the exodus of members after 20 years of service, precluding long careers even where they would be desirable. Moreover, the financial penalties attendant on separation before 20 years may "lock in" unproductive personnel. On the other hand, the system does not encourage journeymen personnel to pursue longer careers; thus, it appears unlikely to help the services cope with changing requirements for experienced personnel.

-- Military retirement benefits and costs are also criticized as being excessively high in comparison to those of other systems. Calculations of accrual costs indicate that, including Social Security, benefits under the typical private-sector plan cost employers only about one-third as much as military retired pay costs the taxpayer. Military retirement is also more

costly than conventional civil service retirement for federal personnel. But special civil service plans, such as those for federal protective services personnel or state police and fire service employees, typically provide benefits almost as high as military retirement. In most cases other countries' military retirement plans are considerably less generous than the current American military retirement system, especially for 20-year retirees.

Nine major studies since 1969 have concluded that changes should be made in the military retirement system. The next chapter reviews those studies and the changes they recommended.



---

## CHAPTER III. RECENT EFFORTS AT RETIREMENT MODIFICATION

---

The military retirement system has been the subject of continued examination since it assumed its current form soon after World War II. Since 1967, nine major studies have recommended extensive changes in the retirement system; two of these have resulted in the formulation of comprehensive legislative reform proposals. Although the Congress did not enact either proposal, it has made other, less sweeping changes in military retirement. This chapter summarizes the analytic and legislative efforts since 1969, together with the principles of retirement modification they share. A more detailed description of the study recommendations is available in Appendix A.

### MAJOR STUDIES OF THE MILITARY RETIREMENT SYSTEM

The First Quadrennial Review of Military Compensation (QRMC I), completed in 1969, recognized that the preponderance of military retirees find second careers in the civilian sector of the economy. <sup>1/</sup> It concluded, however, that their second-career incomes were lower than those of their civilian counterparts--that is, civilian workers with similar age, education, and employment experience--because military skills were often not transferable to the civilian sector. Although QRMC I did not propose that the second-career income loss should determine the amount of the retirement annuity, it suggested several modifications of military retirement keyed to its findings regarding second-career income loss: lower immediate annuities for members who separate prior to "old age," separation pay for enlisted members as well as officers, and stronger incentives for longer military careers.

When the recommendations of QRMC I failed to lead to a legislative proposal, the Interagency Committee (IAC) was formed in 1971 to look again at the principles of military retirement. <sup>2/</sup> The IAC concluded that the

- 
1. Department of Defense, Modernizing Military Pay: Report of the First Quadrennial Review of Military Compensation, Vol. V: The Military Estate Program (Appendices) (January 15, 1969).
  2. Report to the President on the Study of Uniformed Services Retirement and Survivor Benefits by the Interagency Committee, vol. I (July 1, 1971).

retirement system should be structured to provide a stronger retention incentive for junior members who were not yet "locked in" by the 20-year system. To this end, it recommended providing benefits to all members who completed 10 years of service, although to qualify for an immediate annuity upon retirement they would still have to serve 20 years. The IAC also recommended sharp reductions in annuities for those retiring after only 20 years of service, to increase incentives to remain in the military for longer careers.

An internal Defense Department review of the IAC proposal led to the proposed Retirement Modernization Act (RMA) in 1974. <sup>3/</sup> The RMA modified the IAC recommendations to make the changes less far-reaching, while retaining their overall thrust in terms of retention incentives and equity. The RMA became a legislative proposal that was considered by the Congress during 1974-1976. Hearings were held in both houses, but the bill was not reported and no floor action was ever taken.

Meanwhile, the Congress in 1973 had created the Defense Manpower Commission (DMC) to study the long-range and short-run manpower requirements of the Defense Department. <sup>4/</sup> The DMC addressed the retirement system as part of its overall charter, paying particular attention to cost and the role of the retirement system in helping to achieve manpower objectives. The 1976 DMC report concluded that the current retirement system was neither consistent with Defense Department manpower requirements nor comparable to civilian plans, and that accordingly there was no justification for its retention. In its place, the DMC offered a proposal compatible with its other recommendations regarding military personnel and compensation, with the specific objectives of extending military careers to 30 years of service for most members, providing some benefits to those who left with fewer than 20 years of service, and reducing retirement costs.

The timing of the DMC report worked against its consideration. The Department of Defense, which had begun its Third Quadrennial Review of Military Compensation in 1976, referred the DMC recommendations to QRMC III for review. The report of QRMC III, which simply endorsed the

- 
3. Report to the Secretary of Defense by the DoD Retirement Study Group (May 31, 1972).
  4. Defense Manpower Commission, Defense Manpower: The Keystone of National Security, Report to the President and the Congress (April 1976).

provisions of the Retirement Modernization Act proposal, was never formally accepted or acted upon by either the outgoing or the incoming Secretary of Defense. <sup>5/</sup>

Instead, the Carter Administration created the President's Commission on Military Compensation (PCMC) in 1977 and charged it with proposing an "integrated, long-term plan for military compensation," including resolution of the purpose and design of military retirement. <sup>6/</sup> The PCMC approached the issue of retirement modernization from the standpoint of achieving manpower objectives. Like the DMC, it concluded that the retirement system conflicted with efficient personnel management in several ways and that military retirement should be modernized to reinforce other compensation elements in achieving manpower goals.

Specifically, the PCMC recommended some benefits for those who leave with fewer than 20 years of service, to stimulate more to stay early in their careers. Reduced benefits were proposed for those who leave after 20 or more years of service, to increase the incentive for longer careers. In addition, the PCMC recommended that--in return for reduced annuities--retirees could receive an "early withdrawal" of cash after as few as ten years of service. This and other changes that made benefits available earlier in a career would have helped keep more journeyman personnel in the military.

The PCMC's recommendations, modified somewhat, were codified in the Uniformed Services Retirement Benefits Act (USRBA) proposed in 1979. <sup>7/</sup> USRBA was intended to remedy the shortcomings of the retirement system identified by the PCMC: retention incentives that conflict with personnel management objectives, high cost, and inequities between younger and older separatees and between military and civilian retirees.

Although USRBA promised savings in retirement costs and improvements in personnel management, the plan was politically unattractive for

- 
5. Department of Defense, The Third Quadrennial Review of Military Compensation, vol. III (December, 1976).
  6. Report of the President's Commission on Military Compensation (April 1978).
  7. Uniformed Services Retirement Benefits Act, DoD Legislative Proposal 96-80 (1979).

several reasons. The cost savings would not have been realized for 20 or more years owing to the grandfathering of the entire active-duty force.<sup>8/</sup> In the interim, moreover, outlays would actually have increased as at least some active-duty personnel elected "early withdrawal" of lump-sum benefits prior to retirement. In addition, the changes in composition of the military forces that would have occurred under USRBA did not have the support of the services. Partly as a result, USRBA was never formally introduced in the Congress, and no hearings were held in either house.

Modernization of the military retirement system again became an issue in 1983 with the findings of the President's Private Sector Survey on Cost Control (PPSSCC).<sup>9/</sup> In its report on federal retirement systems, the PPSSCC urged reform of the military retirement system to bring its benefits more closely in line with the best private-sector plans. Major proposed changes included reducing the credit for service in the benefit formula; providing immediate, unreduced annuities only after the retiree's 62nd birthday; and integrating benefits with Social Security. The report argued that military retirement is prohibitively expensive and asserted that other personnel management policies could be modified to provide adequate incentives for retention.

Even as the PPSSCC was examining the military retirement system, an internal Defense Department analysis was being conducted by the Fifth Quadrennial Review of Military Compensation (QRMC V).<sup>10/</sup> This Congressionally-mandated review was charged by the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics) with paying special attention to the level and structure of special and incentive pays and to the military estate program. QRMC V made its report to the Secretary of

---

8. USRBA proposed to give all current service members a choice of remaining under the present plan or switching to the new one. While this provision would have minimized the adverse effect of the change on individual members, it would have maximized the transition costs of changing to the new system.
9. President's Private Sector Survey on Cost Control, Vol. VI, Management Office Report on Federal Retirement Systems.
10. Department of Defense, Fifth Quadrennial Review of Military Compensation, Vol. I: Uniformed Services Retirement System (January 1984).

Defense in January 1984. Its recommendations are under review by the Administration and may eventually be forwarded to the Congress.

QRMC V began by addressing the question of the military services' requirements for personnel. Requirements are best expressed in terms of the force profile, the distribution of officer and enlisted members by pay grade and length of service. The actual force profile in existence at any time can and usually does differ from the services' objectives. The objectives, in turn, change over time in response to changing missions, increases or decreases in end strength, and weapons technology. QRMC V found that the services' force profile objectives generally paralleled the average of the force profiles of the past seven years (1976-1982).

QRMC V then asked what the effect would be on the actual profiles and the objectives if the current system was replaced by a different one. More specifically, the study tried to determine whether there was an alternative retirement system that could provide the same retention incentives and thus produce a militarily adequate force profile while reducing cost.

QRMC V concluded that such an alternative could be found, but that it did not have many of the characteristics of the proposals of earlier studies. In particular, by requiring that the incentives for retention under any new system match those of the current system, QRMC V ruled out reducing the value of military retirement for members who retire after 20 or more years of service. Equally important, it proscribed any increase in the value of benefits for those who fail to complete 20 years.

The latter restriction ruled out early vesting or deferred annuities for members separating before 20 years of service, even though all previous studies had recommended such additional benefits. The former limitation required that any reduction of retirees' annuities be matched by provision of an equally valuable benefit. QRMC V recommended that retirees who complete 20 or more years of service receive smaller annuities than under the present system, and that the annuities of those under age 62 be only partially protected against inflation (three-quarters rather than full COLA). To offset the reduction in the value of the retirement system brought about by these changes, QRMC V proposed to pay a portion of the reduced lifetime benefit at the time of retirement. This approach was designed to capitalize on the difference between individuals' high rates of preference for current income and the federal government's lower rate of time preference based on government interest rates. According to the QRMC, these changes in combination would maintain the same retention incentives as the present military retirement system, but at significantly reduced cost.



## CONGRESSIONAL ACTION ON MILITARY RETIREMENT

The Congress has not enacted any comprehensive reform of the military retirement system since 1947. But beginning in 1980, several significant changes have been made that will hold down increases in benefits for future retirees. These changes may be evidence of Congressional dissatisfaction with the history and continued prospect of continued cost growth.

One set of changes concerns the periodic cost-of-living adjustment (COLA) of retired pay to keep pace with inflation. Beginning in 1969, whenever the Consumer Price Index went up 3 percent or more and stayed at that or a higher level for several months, retired pay was increased by the CPI increase plus 1 percent. <sup>11/</sup> The "1 percent kicker" was intended to compensate retirees for the fact that adjustments in their pay lagged the changes in the CPI.

Congressional action in 1976 eliminated the 1 percent kicker and substituted a semiannual adjustment without any extra 1 percent. <sup>12/</sup> In 1980 the Congress changed the adjustment period from semiannual to annual (beginning in fiscal year 1981). <sup>13/</sup> Elimination of the 1 percent kicker reduced the cost of the retirement system by roughly \$140 million in 1976 and about \$2.5 billion by 1983, owing to the cumulative effect on retired pay outlays. The annual rather than semiannual adjustment also cut costs. Assuming that the CPI rises at 4 percent annually, the average CPI for January-June would be two percentage points higher than the average for the preceding July-December. Eliminating the January-June adjustment would therefore mean that retired pay for that period would be 2 percent lower than it would have been under semiannual adjustment, and total retired pay outlays for the year would be lower by 1 percent. Thus, the change to annual adjustment saved a further \$170 million in 1984.

In 1982 the Congress enacted a partial half-COLA limitation, effective during fiscal years 1983-1985. <sup>14/</sup> This limitation specified that military retirees under age 62 (and other federal retirees under that age as well--although 85 percent of all federal retirees under age 62 are military) would receive COLAs equal to half the projected rate of increase in the

---

11. P.L. 91-179, 83 Stat. 837 (December 30, 1969).

12. P.L. 94-361, 90 Stat. 923, Sec. 801 (July 14, 1976).

13. P.L. 96-342, 94 Stat. 1098-99 (September 8, 1980).

14. P.L. 97-253, 96 Stat. 790 (September 8, 1982).

CPI. The projected increases were 6.6 percent in 1983 and 1985, and 7.2 percent in 1984. This limitation stipulated that COLAs would be at least 3.3 percent in 1983 and 1985 and 3.6 percent in 1984, and if the actual CPI increase exceeded the projected levels of 6.6 to 7.2 percent, COLAs would be the stipulated amounts plus the excess.

In fact, the actual change in the CPI in 1983 was 3.9 percent. Retirees subject to the limitation received COLAs of 3.3 percent, or nearly 85 percent of what they would have received in the absence of the limitation. The outlay reduction attributable to the limitation was roughly \$70 million. Inflation is now also projected to be below the earlier projected levels in 1984 and 1985. If these projections are borne out and the Congress does not further modify the COLA provisions, the savings attributable to the COLA limitation will be even smaller in later years.

But even if the savings from the temporary COLA limitation prove to be small, its potential significance may still be great. The half-COLA provision is structurally equivalent to the two-tier annuities recommended by most of the comprehensive studies of the military retirement system, in that it treats retirees differently according to their age. Although it does not provide for an immediate increase in retired pay upon reaching an old-age point, as proposed by all previous studies except DMC, it does increase older retirees' annuities at a faster rate than those of younger retirees, albeit from a lower base than at present.

Moreover, the savings from the half-COLA provision—even if it ends in 1985—will affect retirees for many years. Retirees affected by half-COLA in 1983 will find their annuities permanently reduced, as will those on the retired rolls in 1984 and 1985. When they become eligible for full COLAs in 1986 or upon reaching age 62, their annuity bases for future increases will be lower than had they received full COLAs in the intervening years. Thus, the half-COLA provision will generate long-term savings.

The Congress also acted in 1982 to delay COLA increases during fiscal years 1983-1985, stipulating that the 1983 annual adjustment would be payable in May rather than April, the 1984 adjustment in June, and the 1985 adjustment in July. In 1983 it further proposed delaying the 1984 adjustment to January 1985 as part of a deferral of adjustments in all federal annuities and Social Security. This proposal currently is pending final Congressional action. Assuming a 4 percent annual rate of increase in the CPI, each month's delay reduces retirement outlays by approximately 0.3 percent or \$56 million (in terms of the 1984 cost of the military retirement system).

The Congress has made only one major change in military retirement other than to modify the provisions for inflation protection. Legislation in

fiscal year 1980 based retirement pay on the average pay in the three highest years, rather than on final basic pay.<sup>15/</sup> This change will apply to all retirees whose date of entrance into military service is after September 7, 1980. Its effect on retirees' annuities depends on the rate of change in future basic pay resulting from pay raises, longevity increases, and promotions. For planning purposes, an annual (nominal) rate of change of 4 percent is commonly posited for military compensation. Assuming future pay increases of this amount, the use of high-three in calculating retired pay would reduce annuities by approximately 12 percent compared to the current high-final computation base. If this change had been fully in effect in fiscal year 1984, it would have reduced retired pay outlays by slightly more than \$2 billion.

## ELEMENTS OF COMPREHENSIVE REFORM PROPOSALS

Although the Congress has refrained to this point from making structural changes in military retirement, continuing pressure to reduce the cost of the system may ultimately spur consideration of fundamental reform. In addition, the cost-containment measures enacted during the past few years may eventually induce the Department of Defense to support modification of military retirement to improve retention. This chapter's review of recent studies suggests that a near consensus exists on principles that should be embodied in a modified military retirement system.

### Two-Tier Structure

All studies except DMC have recommended some variant of a "two-tier" annuity. For working-age retirees, annuities would be reduced from current levels. Once a retiree reached old age and retired completely from the labor force, his military annuity would be restored approximately to current levels. Most studies have proposed that the "step" to the higher annuity occur when the retiree reaches age 60 or so. Some proposals, notably RMA, have advocated the "step" at the 30th anniversary of entrance into service, which occurs around age 50. The rationale behind the two-tier structure is to reduce costs without lowering retirement annuities during the period when members are likely to be financially dependent on them. Because it decreases the forfeiture of retired pay associated with longer careers, the two-tier annuity also reduces the incentive to leave immediately after 20 years of service.

---

15. P.L. 96-342, 94 Stat. 1100 (September 8, 1980).

## Formula Revisions

All plans have proposed revising the formula or "multiplier" (currently 2.5 percent per year of service) by which members accrue retirement benefits. Proposed changes have usually decreased the multiplier for those leaving after just 20 years, increased the multiplier for service well beyond 20 years, or both. Such changes would strengthen the incentive to remain beyond 20 years and so also encourage longer careers.

## Early Vesting

All studies except QRMC V have proposed to provide or "vest" benefits for members who leave with more than about 10 but fewer than 20 years of service. These benefits would usually not be available until age 60 or later. Early vesting would improve retention early in a career, between the first term of service (typically four years) and the ten-to-twelve-year point where the 20-year system "locks in" members. In addition, early vesting would increase the services' willingness to separate persons involuntarily before 20 years of service because they would still receive some benefits.

## Other Early Retention Incentives

Although early vesting is intended in part as a measure to improve retention before the "lock-in" point, the cost of these benefits may be high in relation to the additional retention that they induce because deferred benefits are distant and so have little effect early in a career. Some plans, notably PCMC and USRBA, have proposed letting members choose cash benefits early in their careers in lieu of deferred annuities. These plans would probably improve retention more than early vesting of an annuity available at age 60 or later. They would, however, generate increased outlays quickly if members reacted by withdrawing their benefits.

## Rapid Phase-in of "High-Three"

Only the PPSSCC and QRMC studies have been conducted since 1980, the date of Congressional enactment of the provision basing retired pay on the three highest years' average pay. The provision applies only to entrants into military service after September 7, 1980. The PPSSCC recommended immediate implementation of a "high-five" provision, the most common among private-sector plans, for all current service members except those within three years of retirement. QRMC V did not recommend any change.

Earlier studies all recommended use of a longer averaging period--one, two, or three years--in calculating retired pay.

### Social Security Integration

All studies except DMC and QPMC V have supported integrating Social Security benefits with military retirement as a cost control measure. DMC endorsed integration obliquely by suggesting that the formula for calculating military retired pay ought to take account of members' accrual of Social Security benefits. Generally the studies have recommended that, when military retirees become eligible for Social Security, their annuities be reduced by a portion of the amount of their Social Security benefits attributable to military service. These proposals partially offset the progressive aspect of the Social Security system, in which benefits are a larger fraction of earnings for low-income personnel than for higher-income workers. Similar partial offsets to this Social Security "tilt" are incorporated in most private-sector pension plans.

### Grandfathering

Most studies have recommended grandfathering for all or most active-duty personnel even though it delays the realization of outlay reductions. As noted in Chapter II above, Congressional enactment in 1983 of accrual accounting for military retirement would make long-run savings evident immediately in the defense budget even if all current-service personnel and retirees were grandfathered.

### Inflation Protection

In light of recent Congressional action to modify the COLA mechanism for the military retirement system, it should be noted that only the two studies conducted since Congress acted to limit COLAs, QPMC V and PPSSCC, proposed changing from the traditional full COLA. The other studies achieved cost reductions in other ways--formula changes, Social Security integration, high-three, and especially the two-tier annuity. The options discussed in the next chapter of this study focus more closely on the COLA issue than was done in most past reviews of the military retirement system because of the prominence given to COLA changes in recent discussions of retirement modification.

---

## CHAPTER IV. OPTIONS FOR MILITARY RETIREMENT

---

Within the past year three alternative ways of modifying the military retirement system have been proposed. Designed with different objectives, all three would reduce the cost of military retirement and affect the military services' ability to meet their manpower objectives. In this chapter these three alternatives to the current system are described, together with a fourth that is designed to be compatible with the proposals of earlier studies described in the preceding chapter. Together with the current system, these illustrate the range of basic alternatives before the Congress as it considers modification of the military retirement system. Principal features of the five options--the current system and four alternatives--are described below and summarized in Table 5.

### DESCRIPTION OF OPTIONS

One option is simply retention of the current system. Under the present system members who fail to complete at least 20 years of service receive no military retirement benefits, but their military basic pay has since 1956 been subject to Social Security taxes and qualifies them for Social Security benefits. The military retirement system at present provides immediate annuities for those members who separate after completing 20 or more years of service. The retirement annuity for a qualifying member is calculated as 2.5 percent per year of service multiplied by final basic pay. Members who entered active duty after September 7, 1980, will have their high-three average basic pay used as the computation base once they qualify for retired pay. Under current law COLAs will be limited through fiscal year 1985, but after that members' annuities again are scheduled to be fully indexed to inflation.

The first alternative is the proposal of QRMC V to reduce annuities but add an early withdrawal benefit for retirees. This option would retain the current formula for calculating retired pay, which provides annuities only for those who complete 20 or more years of service. Members who separated before completing 30 years of service, however, would have their annuities permanently reduced by 3 percent per year (for example, to 35 percent of basic pay--70 percent of the current annuity--for a 20-year retiree). In addition, members would receive COLAs of 75 percent of the change in the CPI until they reached age 62. QRMC V does not propose either Social Security integration or early phase-in of the high-three computation base.

TABLE 5. OPTIONS FOR MILITARY RETIREMENT

	Current System	QRM C V (Reduced Annuity with Early Withdrawal)
Formula	2.5 percentage points per year of service-- max 75 percent	same as current system
Annuity Base	final basic pay (high-3 for those entering after Sept. 7, 1980)	same as current system
Two-Tier Provision	none	reduced annuities for retirees with less than 30 years of service (3 percent annual reduction)
Vesting	only after 20 years of service	after 20 years of service; lump-sum payment at retirement
Grandfathering	not applicable	choice for members with 12+ years of service at enactment; none for partial COLA
Social Security Integration	no	no proposal
Inflation Protection	full COLA after 1985	three-quarters COLA up to age 62; full COLA thereafter

TABLE 5. (Continued)

Permanent Half-COLA	Synthesis (Modified Half-COLA)	PPSSCC (Annuity at Age 62)
same as current system	same as current system	1.6 percentage points per year of service--max 48 percent
same as current system	high-3 basic pay; immediate phase-in	high-5 basic military compensation; immediate phase-in
half-COLA annuity increases to age 62	deferred annuity to age 62 for 10-19 years of service	deferred annuities to age 62 for all with 10+ years of service; reduced annuity at age 55 (6 percent annual reduction); transition benefit for all with 20+ years of service
after 20 years of service	after 10 years of service	after 10 years of service
no	members with 10+ years of service at enactment; none for half-COLA	members with 10+ years of service at enactment (except for formula and COLA)
no	yes; 1.25 percent per year of service times primary Social Security benefit	yes; 1.25 percent per year of service times primary Social Security benefit
half-COLA up to age 62; full COLA thereafter	half-COLA up to age 62; then catch-up and full COLA thereafter	modified full COLA before age 62; one-third COLA thereafter



These reductions in the value of military retirement would decrease a member's incentive to remain in service for 20 years or more. To counteract this, QRMC V proposes a lump-sum cash early withdrawal benefit at the point of retirement. The amount of the payment would be three times current basic pay for enlisted members and twice it for officers. QRMC V estimates that these amounts would be sufficient to maintain the current value of retired pay at 20 years of service. For a typical officer who retires at paygrade O-5 after 20 years of service, the early withdrawal amount would be \$78,768 at current pay levels. A typical enlisted member retiring in paygrade E-7 after 20 years would receive \$55,544. QRMC V proposes to grandfather only members with 12 or more years of service as of the date of enactment, by letting them choose whether to retire under the new or old plan.

A third option, structurally simpler than the QRMC V proposal, is to superimpose permanent half-COLAs, as proposed in the President's budget for fiscal year 1984. This alternative, which has not been put in the form of a legislative proposal, specifies that retirees under age 62 would receive annual retired pay adjustments equal to 50 rather than 100 percent of the rate of change in the Consumer Price Index. Other features of the current system would not be changed. Neither current nor future retirees under age 62 would be grandfathered for full COLAs.

The fourth option, called the Modified Half-COLA Synthesis Option, is derived from the many studies summarized in the preceding chapter. Members would receive half-COLAs until age 62, at which time the computation base would be adjusted (through a "catch-up") to the level it would have reached if full COLAs had been paid since separation from service. For those who leave with more than 10 but fewer than 20 years of service, the plan provides for early vesting of benefits with receipt of the deferred annuity delayed until age 62. The annuity structure of the current system would be retained, but high-three would be phased in immediately as the computation base. Military retirement benefits would be offset proportionally against earned Social Security benefits attributable to the government's share of contributions (thus partially offsetting the Social Security "tilt" discussed in Chapter III).

A fifth option is the one proposed by the PPSSCC. This plan is based on the premise that the military retirement system should be comparable to (if somewhat more liberal than) the best private-sector plans. This proposal also incorporates some of the recommendations of earlier studies of military retirement.

The major features of the PPSSCC plan are modeled after private-sector practice. One key provision is that the credit for service be reduced

from the current 2.5 percent of basic pay (1.9 percent of Basic Military Compensation, the military "salary") to 1.6 percent of BMC, compared to the 1.5 percent of salary (before Social Security offset) typical of the best private-sector plans. This plan also calls for proportional integration of Social Security and military retirement benefits--for all retirees, including personnel now retired and those on active duty--by reducing retired pay by 1.25 per year of service multiplied by the primary Social Security benefit. A further annuity reduction would result from using high-five average BMC, as is usual in the private sector.

Under the PPSSCC proposal members would be able to receive immediate, unreduced annuities only upon reaching age 62, instead of upon completing 20 years of service as under the current system. Actuarially reduced annuities would be available at age 55. The plan would provide vesting of annuities for all members who completed at least ten years of service. In addition to the annuities, a transition payment over a five-year period after retirement is proposed for all members who complete at least 20 years of service.

This plan proposes no adjustment of "high-five" annual BMC between the time of separation from service and initial receipt of retired pay. COLAs would be paid only after members began to receive their retirement annuities. Members over age 62 would receive COLAs of one-third of the change in the CPI, as is typical of the best private-sector plans. Members under age 62, who had not yet begun to receive fully-indexed Social Security benefits, would receive COLAs equal to the lower of the CPI change or the increase in BMC. All COLA changes would be effective immediately upon enactment for all retirees.

Under the PPSSCC proposal there would be no grandfathering of any personnel--including current retirees--with respect to Social Security integration or COLAs. All active-duty personnel except those within three years of retirement would be covered by the change to high-five annual BMC. Active-duty members with ten or more years of service as of the date of enactment of the proposal would be allowed to receive annuities immediately upon retirement (after at least 20 years of service); all others would have to wait until age 62, but would be eligible to receive transition benefits after completing 20 years of service. All service after enactment would be credited toward retired pay using the new formula.

The differences among these plans are illustrated in Tables 6 and 7, which show the annuity and lump-sum cash amounts that would be paid to typical enlisted and officer retirees. The wide variation among the retirement benefits suggest that effects on cost and manpower would also vary greatly.

TABLE 6. RETIREMENT ANNUITIES FOR TYPICAL ENLISTED RETIREES UNDER ALTERNATIVE PLANS (In nominal dollars, assuming retirement on December 31, 1983, and full implementation of all alternatives as of that date)

	Age			Lifetime Present Value <u>a/</u>
	39	49	62	
E-7 retiring after 20 years' service				
Present System	8,900	13,800	24,400	270,700
QRMC	6,200+53,400 <u>b/</u>	8,100	13,500	216,500
Half-COLA	8,900	11,100	15,200	201,700
Synthesis	8,300	10,400	20,400	210,600
PPSSCC	(19,200) <u>c/</u>	-0-	4,100	30,300
E-9 retiring after 30 years' service				
Present System	-----	19,900	35,200	474,400
QRMC	-----	19,900+79,700 <u>b/</u>	31,000	511,600
Half-COLA	-----	19,900	27,200	393,600
Synthesis	-----	18,800	30,000	399,900
PPSSCC	-----	(43,700) <u>c/</u>	11,800	105,000

- In 1985 dollars, assuming 0.5% real wage growth and 1.0% real interest rate.
- Early withdrawal lump-sum benefit.
- Present (cash) value of five-year transition payment.

#### MEASURES OF COST AND MILITARY MANPOWER

The best measure of the cost of the retirement system itself is its accrual rate, the percentage of basic pay that would have to be set aside to build a fund large enough to pay members their earned retirement benefits. The current military retirement system is estimated by CBO to have an accrual cost of 48.9 percent of basic pay.

TABLE 7. RETIREMENT ANNUITIES FOR TYPICAL OFFICER RETIREES  
UNDER ALTERNATIVE PLANS (In nominal dollars, assuming  
retirement on December 31, 1983, and full implementation  
of all alternatives as of that date)

	Age			Lifetime Present Value <u>a/</u>
	42	52	62	
O-5 retiring after 20 years' service				
Present System	18,900	29,300	45,500	575,800
QRMC	13,300+78,400 <u>b/</u>	17,200	26,000	426,600
Half-COLA	18,900	23,600	30,200	438,100
Synthesis	17,700	22,100	40,100	469,600
PPSSCC	(40,600) <u>c/</u>	-0-	11,500	85,800
O-5 retiring after 30 years' service				
Present System	----	36,000	55,800	857,200
QRMC	----	36,000+96,100 <u>b/</u>	50,600	854,900
Half-COLA	----	36,000	45,900	736,300
Synthesis	----	34,100	49,900	756,100
PPSSCC	----	(80,000) <u>c/</u>	24,400	255,600

- a. In 1985 dollars, assuming 0.5% real wage growth and 1.0% real interest rate.
- b. Early withdrawal lump-sum benefit.
- c. Present (cash) value of five-year transition payment.

It is important to remember, however, that retired pay is only one element of the overall military compensation system. Changes in the military retirement system typically will affect retention and thus alter the size and average experience level of the armed services, with consequent effects on the overall cost of military manpower. Both the direct savings in retirement costs and the indirect changes in the cost of other elements of mili-

tary compensation will be reflected in the change in overall defense and federal outlays.

Both the accrual and outlay measures of cost are relevant in evaluating the effects of changing the military retirement system. Accordingly, both cost measures are used in this study. The change in the accrual cost indicates the long-run savings in retirement costs, and the accrual rate can be used to compare military retirement costs with those of other systems. The change in outlays includes the related effects on other compensation elements, but typically understates the long-run savings because of the presence in the near term of grandfathered personnel.

Savings in personnel or retirement costs are only part of the story, however. Modification of military retirement can be expected to affect military capability unless changes in retention incentives are offset by other compensation elements or personnel policies. One way to avoid trading cost savings for reduced capability is to increase other pays and benefits enough to restore whatever personnel losses would result from reductions in retired pay. This is the approach taken by QRMC V through its proposal for an early withdrawal benefit.

The change in the military force profile resulting from modification of military retirement is an indicator of the additional pressure that would be placed on the personnel system--including non-compensation as well as other compensation policies--to maintain military capabilities. The force profile can be specified in great detail, to include skill and individual year-of-service changes as well as service and officer-enlisted categorizations. So detailed a presentation, however, makes comparisons difficult between different profiles because there is no commonly accepted metric for trading off gains in one part of the force profile for losses in another.

QRMC V, in addressing this problem, chose to accept the present overall force profile as a datum. The military services' manpower requirements are compatible with the retention incentives provided by the current retirement system. QRMC V would require any modified retirement system to be capable of producing the same overall force profile, and thus to provide essentially the same retention incentives as the present system.

In view of the availability of other personnel policies, however, the QRMC V approach appears to be overly restrictive. The actual force profile varies considerably from year to year and can change systematically over time with new missions and weapon systems. When the actual profile differs from the desired one, the military personnel system has many policies at its disposal to close the gap. In addition to changing compensation, personnel managers can alter the frequency or opportunity for promotion, the option

for retraining in different skills, tour lengths, housing assignment, or many other non-compensation policies.

The other three modification options considered in this study--half-COLA, Synthesis, and PPSSCC--do not provide the same retention incentives as the current system and QRMC V. Instead, they would induce changes in the military force profile. As a measure of these effects, this study uses the aggregate change in the size and average experience level--length of service--of the career force, defined to include members with more than four years of service.

Impacts on officer and enlisted personnel are shown separately. Available data indicate that officers and enlisted members respond very differently to retention incentives. Further, retention problems differ between the officer and enlisted corps, and the military retirement system is typically of much greater value (measured by its accrual cost) to officers than to enlisted personnel. For example, under the current system CBO estimates the the accrual rate for officers at 61 percent of basic pay compared to 44 percent for enlisted members, reflecting the fact that a larger fraction of officer personnel eventually reach retirement eligibility.

These differences between officers and enlisted members are more pronounced than those across services or skills. Accordingly, no attempt is made in this study to describe the effects of retirement modification on individual services or personnel in different military specialties.

Within a constant end-strength requirement, changes in the size of the career force typically must be offset by changes in the number of junior personnel and, indirectly, in the number of accessions. Increases (decreases) in the number of accessions, moreover, lead to reductions (enhancements) in accession quality unless there are further changes in recruiting resources or enlistment incentives. Changes in the size of the career force thus are directly related to (and provide a surrogate measure of) the quality of personnel entering military service.

#### COST AND MANPOWER IMPACTS

The analysis of the long-run or steady-state effects of modifying military retirement is summarized in Table 8. The table shows the accrual cost of retired pay and the size and experience levels of the career force under the current system, assuming that it were to be retained indefinitely. The table also shows the changes that would arise under the alternative retirement systems, relative to these baselines.

TABLE 8. LONG-RUN EFFECTS OF ALTERNATIVES FOR MODERNIZING MILITARY RETIREMENT

	Current System	QRMV Option	Permanent Half-COLA	Synthesis Option	PPSSCC Option
<b>Enlisted</b>					
Accrual Costs					
Percent of Basic Pay	44.0	42.0	32.3	38.8	10.1
Percent Change	--	-4.5	-26.6	-11.8	-77.0
Career Force					
Number/Increment	871,646	+46,515	-31,162	-27,621	-98,828
Percent Change	--	+5.3	-3.6	-3.2	-11.3
Average Seniority	12.0	12.2	11.6	11.7	11.1
Percent Change	--	+2.3	-2.6	-2.2	-6.8
<b>Officer</b>					
Accrual Costs					
Percent of Basic Pay	61.1	50.5	47.4	60.0	14.8
Percent Change	--	-17.3	-22.4	-1.8	-75.8
Career Force					
Number/Increment	208,643	+3,844	-5,679	-4,604	-20,380
Percent Change	--	+1.8	-2.7	-2.2	-9.8
Average Seniority	12.5	12.8	12.1	12.2	10.9
Percent Change	--	+2.2	-3.2	-2.6	-12.5
<b>DoD Total</b>					
Accrual Costs					
Percent of Basic Pay	48.9	44.0	36.6	44.8	11.4
Percent Change	--	-9.2	-25.2	-8.4	-76.7
Career Force					
Number/Increment	1,080,289	+50,359	-36,841	-32,225	-119,208
Percent Change	--	+4.7	-3.4	-3.0	-11.0
Average Seniority	12.1	12.3	11.7	11.8	11.1
Percent Change	--	+2.3	-2.7	-2.3	-8.0

It is important to recognize that the baseline career force itself has changed over time. During the five years from 1978 through 1982, the aggregate career force (officer and enlisted) grew by over 12 percent. Further growth in the future is projected as a result of the high career reenlistment rates currently being enjoyed by all services. CBO projects a long-run baseline career force some 5 percent larger than the one in existence at the end of 1982. This increase is projected to occur despite the fact that the use of high-three average basic pay in computing retirement annuities will decrease the incentive for members to remain in service for "full careers." Reductions from this long-run high-three baseline, accordingly, need not result in a career force that is smaller or less experienced than the one the services have at present. Instead, modest losses would simply hold the career force at its current level and composition, rather than permitting it to grow in size and experience level as it is projected to do under the current retirement system and current compensation policies.

Tables 9 and 10 summarize how annual federal outlays would be affected by the options under consideration for military retirement. Table 9 displays the time-pattern of outlays for retired pay. Table 10 adds other military personnel costs: current pay and allowances, special and incentive pays, and recruiting and training costs.

All these estimates were made using models developed by the Department of Defense but run with data and assumptions supplied by CBO. The models used to estimate effects on the size of the career force rely on regression relationships to relate willingness to remain in the military to the value of pay and retirement. By substituting different values, the model estimates the effects of changes in retirement. Numbers of retirees are projected using the estimates of willingness to remain in the military along with active-duty, retiree, and survivor mortality tables. Costs are then derived from the different retirement formulas.

All these models depend on estimates of future prices and wage increases as well as other economic variables. For 1985-1987, the models use CBO's latest economic forecast of price and wage growth; beyond 1987, the models assume that prices grow at 4.5 percent a year, wages at 5 percent a year. A real interest rate of 1.0 percent (5.5 nominal) is assumed.

#### QRMC "Reduced Annuity with Early Withdrawal"

As noted above, the QRMC option was designed to duplicate existing incentives to remain in service for 20 years and thus to generate career



TABLE 9. ESTIMATED OUTLAYS FOR RETIRED PAY, 1985-2020 (In millions of 1985 dollars)

		Changes from Current System			
	Current System	QRMC V Option	Permanent Half-COLA	Synthesis Option	PPSSCC Option
1985	17,515	+9	-6	0	-68
1986	17,922	-79	-167	-169	-328
1987	18,125	-266	-524	-547	-543
1988	18,327	-358	-699	-738	-735
1989	18,531	-438	-866	-915	-861
1990	18,720	-507	-1,024	-1,076	-981
1995	19,575	+701	-1,824	-1,677	-1,907
2000	20,373	+451	-2,640	-2,292	-4,777
2010	21,170	+340	-4,293	-3,725	-10,664
2020	21,510	-503	-5,278	-3,716	-14,463

TABLE 10. ESTIMATED TOTAL OUTLAYS FOR MILITARY PERSONNEL, 1985-2020 (In millions of 1985 dollars)

	Current System	Changes from Current System			
		QRMV Option	Permanent Half-COLA	Synthesis Option	PPSSCC Option
1985	63,913	-68	+142	+193	+291
1986	65,115	-109	-116	-124	-162
1987	66,023	-277	-561	-649	-531
1988	67,309	-349	-799	-931	-730
1989	68,028	-405	-1,005	-1,196	-1,044
1990	68,908	-460	-1,232	-1,450	-1,351
1995	71,067	+889	-2,258	-2,327	-3,564
2000	73,000	+923	-3,159	-3,048	-6,535
2010	75,938	+1,127	-4,663	-4,066	-12,070
2020	78,757	-7	-5,816	-4,123	-15,994

retention at least equal to that under the current system. CBO estimates that this plan would actually increase the size of the career force by some 46,500 enlisted members and 3,800 officers, or 4.7 percent overall. <sup>1/</sup>

In addition, the career force would grow slightly (2.3 percent) in average length of service. Average career length would rise chiefly because of the permanent annuity reduction for those who began to receive retired pay before their 30th anniversary. In this respect the QRMC plan is consistent with the recommendations of other studies, all of which advocated increasing the incentives for members to remain in service for longer careers. This plan, however, differs from the others in making no provision to vest benefits for members who separate before completing 20 years of service. Thus it would not increase service flexibility to separate members involuntarily before the 20-year point, as advocated in all previous studies.

Long-run or accrual savings would be more modest under this plan than with any of the other options except the Synthesis plan. As Table 8 shows, accrual savings would be 9.2 percent under CBO's estimates, or \$1.6 billion in the 1985 defense budget.

The near-term retirement outlay savings shown in Table 9 arise chiefly from reducing benefits for current retirees. One way to reduce these benefits is to impose partial COLAs, as Congress mandated for 1983-1985. The QRMC option provides for three-quarters rather than full COLA (without grandfathering), and thus leads to some early outlay savings.

Between 1990 and 1995, however, the early withdrawal provision of the QRMC plan would begin to generate outlays in excess of what would be paid under the current system. Such a "bulge" in outlays is characteristic of any plan that offers lump-sum payments in lieu of annuities. In this case the early withdrawal benefits raise costs by larger amounts before savings from

- 
1. In estimating the effects of the retirement modification options CBO made several assumptions that differ from those made by the QRMC. Specifically, CBO used projected continuation rates instead of historical averages, CBO's economic assumptions rather than those of OMB, and estimated rather than assumed personal discount rates. The combined effect of these assumptions was to reduce CBO's estimates of manpower losses and cost reduction relative to those of the QRMC. In most cases the manpower differences were less than 0.5 percent of the career force. In the case of the PPSSCC proposal, however, the higher personal discount rates used by CBO led to estimates of losses substantially smaller (50,000 enlisted members) than those made by the QRMC.

the reduced annuities are realized. Only well into the next century, around 2010, would the annuity reductions more than offset the early withdrawal payments and the QRMC plan again produce net savings in retirement outlays.

Table 10 shows that the "Reduced Annuity with Early Withdrawal" plan would lead to a similar pattern of changes in total federal outlays for military personnel. Near-term savings would be more than offset by early withdrawal costs once non-grandfathered active-duty personnel passed the 20-year point. In addition, the larger career force projected by CBO would have higher current pay costs than the career force projected under the current system. Thus, savings in total personnel outlays would be smaller and longer-delayed than the savings in outlays for military retirement.

The early withdrawal provision is an integral aspect of the QRMC proposal, designed to compensate for annuity reductions while enabling the services to meet their current manpower objectives. Unfortunately, this provision also generates large outlay increases within ten years of enactment and offsets much of the accrual savings that would otherwise stem from the proposed annuity reductions. A similar pattern of outlay increases that would have resulted under the proposed USRBA (1979) was one reason why the plan failed to receive Congressional approval.

To mitigate this adverse aspect of the QRMC proposal while keeping the overall structure of the plan, early withdrawal benefits might be set at smaller multiples of annual basic pay (two or one for enlisted members, one or zero for officers). Another alternative would be to offer these benefits only to members who serve in critical career skills such as combat arms, electronics, nuclear engineering, or aviation. Modifications such as these in the QRMC plan would increase its accrual savings and reduce the "outlay bulge," but would lead to poorer career retention and perhaps to some reductions in the overall size or seniority of the career force.

### Permanent Half-COLA

The other options discussed in this study would all produce permanent outlay reductions and accrual savings, but at the price of some reduction in numbers and experience levels of career military manpower. "Permanent Half-COLA" is structurally the simplest of the alternatives and builds on recent Congressional action to limit the inflation-driven growth of federal outlays for income security.

"Permanent Half-COLA" would generate large accrual savings, as shown in Table 8, at the cost of modest reductions in the size and average

seniority of the career officer and enlisted forces. Assuming long-run inflation at 4.5 percent, the 25.2 percent reduction in accrual costs translates into a \$4.4 billion decrease in the 1985 defense budget (although not, of course, into a comparable immediate decrease in federal outlays).

As shown in Tables 9 and 10, however, the outlay savings as well as the accrual reductions would be quite substantial. "Permanent Half-COLA" would reduce retired pay outlays immediately after enactment, and the amount of outlay savings would increase steadily over time. Initially these savings would be offset somewhat by increased accession costs, but in time total federal outlays for military personnel would show even larger savings than outlays for retired pay. These reductions in cost, however, simply reflect the net decrease in career force size and seniority in the absence of increased bonuses or pays as discussed above.

These savings would lead to the eventual loss of some 36,800 (3.4 percent) career enlisted and officer personnel. In consequence, the average experience level of the career force would decline by 2.7 percent. The losses probably would not occur immediately, but would build instead over time. It is unlikely that losses in any single year would exceed 5,000, or about one-half of 1 percent of the career force. Losses of this magnitude are small relative to annual fluctuations in retention; over the past five years, the average annual change in the size of the career force has been 3 percent. Moreover, these losses would simply offset some of the growth otherwise likely to occur in the career force under the current retirement system.

In view of survey results and the high value of the retirement system to service members after about eight years of service, it might be thought surprising that a significant change in military retirement would cause only a small percentage change in the size of the career force. The explanation of this result lies in the determinants of career force size.

The number of career military personnel is affected most strongly by members' reenlistment decisions early in their careers, when numbers of personnel are largest. Two factors limit the effects of retirement on early-career reenlistment decisions. First, promotion opportunities are not unlimited, so members are uncertain about being able to remain in service long enough to qualify for retired pay. Second, the receipt of retirement benefits is deferred in time, so their value is reduced by members' personal "discount" rates.

These discount rates measure the preference that everyone has for current rather than deferred benefits such as retirement. The magnitude of

members' personal discount rates has been a subject of considerable discussion and controversy. CBO's analysis uses discount rates based on a 1979 survey of military personnel, as analyzed by SRA Corporation. <sup>2/</sup> The use of a military population as the data source enhances the validity of the SRA estimates. These estimated rates are also consistent with both economic theory and the results of other studies. <sup>3/</sup>

The personal discount rate is one of the key factors affecting the retention estimates. Others include projections of real wage growth, military pay, and inflation. Within modest ranges, however, the estimates are not highly sensitive to the specific values chosen for these factors.

If the Congress or the military services desired to offset the modest losses in the size of the career force stemming from reductions in retired pay, they could probably do so while still realizing overall savings. For example, expanded use of selective reenlistment bonuses could maintain the size of the career force at a cost of approximately \$400 million annually. <sup>4/</sup> The additional reenlistments, however, might not come from personnel with the same length of service as those who would leave service because of reductions in retired pay. Across-the-board pay raises could provide the same overall increase in reenlistments at about the same cost, but the reen-

- 
2. Matthew Black, "Personal Discount Rates: Estimates for the Military Population" (Systems Research and Applications Corporation, May 20, 1983). These rates are tabulated in Appendix B of this study.
  3. S. Cylke, M. Goldberg, P. Hogan, and L. Mairs, "The Personal Discount Rate: Evidence from Military Career Decisions" (Economic Analysis Branch, Department of the Navy (OP-162), 1982).

Harry Gilman, Determinants of Implicit Discount Rates: An Empirical Examination of the Pattern of Voluntary Pension Contributions of Employees in Four Firms (Center for Naval Analyses, 1976).

"Discounting of Military Personnel at Various Ages," Defense Study of Military Compensation, SGMCM/MA-3 (1962).

Subjective Discount Rates of Active Duty Military Personnel (Contract of DANC 15 72C 0099, OSD(M&RA), 1972).

4. Derived from Matthew Goldberg, "Cost Effectiveness of Alternative Pay Increases" (Center for Naval Analyses, CNA 81-1947, January 6, 1982).

listees would tend to be more junior members, not necessarily in the same critical skills that could be targeted with bonuses. Under either approach, however, the federal government would realize substantial net savings from reducing retired pay.

Despite the substantial savings and modest retention effects of the permanent half-COLA plan, it has disadvantages. If high inflation prevailed for a number of years, this plan could cut retirement pay by much more than projected and hence have larger effects on the career force. The estimates in this study assumed annual inflation of 4.5 percent. But at inflation rates of 10 percent, reductions in the career force could eventually amount to 6 percent.

The permanent half-COLA plan could be modified to minimize this disadvantage. Retirees could receive half the normal COLA on price increases up to, say, 8 percent but full COLA protection for price increases in excess of 8 percent. Alternatively, this plan could provide cost-of-living raises equal to increases in the Consumer Price Index (CPI) minus, say, two percentage points. This approach would automatically avoid large cuts in times of high inflation.

Compared to "partial COLA" plans, "COLA minus" plans offer some clear advantages. First, savings to the government can be known with certainty, rather than depending on the rate of inflation. Second, as a related point, the risk of inflation to the service member or retiree is minimized under the "COLA minus" approach. The retiree or service member can then better plan his financial affairs and may be less likely to leave service because of the unacceptable riskiness of the military retirement plan. CBO's estimates of budgetary and manpower impacts for permanent half-COLA actually are analytically equivalent to estimates for "COLA minus 2.25 percent," given the long-range economic projections in the CBO baseline.

In other respects the "Permanent Half-COLA" plan departs from the recommendations of earlier studies. It does not strengthen the incentive to remain for a longer career, in contrast to the approach uniformly proposed in the studies cited in Chapter III. It does not provide for early vesting and therefore does not enhance the services' flexibility to separate members involuntarily. And it does not grandfather either any current active-duty members or any current retirees who happen to be younger than age 62. Thus, the "Permanent Half-COLA" option generates its accrual and outlay savings at some cost in equity toward many members who have completed all or part of their military service.

### Modified Half-COLA Synthesis

This option builds on the underlying premise of the "Permanent Half-COLA" option that modification of the current retirement system is needed to hold down costs and make military retired pay somewhat more comparable to other plans. This alternative, however, extends the half-COLA approach by adding features recommended in previous studies: a two-tier structure with early vesting, grandfathering of current active-duty personnel with ten or more years of service, and immediate phase-in of high-three averaging and a Social Security offset. The resulting synthesis is intended to reduce costs (both accruals and outlays) while maintaining the size of the career force, improving retention incentives and personnel management, and achieving the equity goals identified in earlier studies.

The Synthesis plan achieves these goals only imperfectly, in part because the objectives are in partial conflict with one another. As shown in Table 8, the proposal yields modest reductions in accrual cost at the price of slight decreases in the size (3.0 percent) and experience level (2.3 percent) of the career force. Relative to the "Permanent Half-COLA" plan, accrual savings would be little more than one-third as great--\$1.5 billion in the 1985 defense budget--while eventual career losses would be seven-eighths as large. Relative to the QRMCM "Reduced Annuity with Career Bonus" plan, the Synthesis option would cost an additional \$100 million in the 1985 defense budget and would eventually reduce the career force size by an additional 82,600 personnel.

The "Modified Half-COLA" synthesis is more attractive on other grounds, however. Unlike the QRMCM plan, the Synthesis option offers continuous reductions in outlays, as shown in Tables 9 and 10. The catch-up feature of the Synthesis plan, which reduces the loss of career personnel somewhat, also improves the adequacy of military retired pay during the years when members are likely to have left the labor force. Partial grandfathering together with the catch-up provision minimizes the inequity with respect to military personnel who are currently on active duty or already retired.

The Synthesis plan would also achieve some of the personnel management objectives identified in earlier studies. Its early vesting provision would improve retention among younger career personnel in the "journeyman" (4-12 years of service) category. This provision would also increase the services' flexibility to separate members involuntarily before the completion of 20 years of service, since such members would still have earned significant retirement benefits through their military service. The



catch-up provision would restore some of the incentive for members to remain in service for 20 years or longer, while improving benefits during the years when retirees are most likely to be dependent on them.

In comparison to the other alternatives, however, the "Modified Half-COLA Synthesis" offers only small accrual savings in proportion to the losses of career service members it would engender. Achieving the goals identified in earlier studies of the military retirement system--outlay reductions, equity, flexibility, and longer careers--can only be purchased at a considerable price.

#### PPSSCC "Annuity at Age 62" Plan

This proposal is more sweeping than the others. While it embodies some of the features of earlier recommendations and has some elements in common with the other options discussed in this study, the PPSSCC plan provides much greater savings than any of the other alternatives--\$13.5 billion in the 1985 defense budget--at the cost of much larger reductions in the size of the career force (11.0 percent) and its experience level (7.9 percent).

The key provisions of the PPSSCC proposal relate to the level and timing of retirement annuities. Social Security integration and the reduction of the annual credit for service would combine to reduce retirement annuities by approximately one-third. In addition, the use of "high-five" annual Basic Military Compensation would further decrease annuities by as much as 15 percent (depending on the inflation rate and members' frequency of promotion).

The impact of these reductions in annuity levels would be compounded by the delay in receipt proposed by the PPSSCC. The plan would change the time of earliest receipt of an unreduced annuity to age 62 (compared with 20 years of service under the current system). For today's typical retiree, this provision would mean a delay of 20 years before receipt of retired pay. It seems apparent that this change would both reduce annuities very substantially and encourage members to modify their plans with regard to the length of their careers.

The "Annuity at Age 62" plan includes some provisions to mitigate the impact of these sizable reductions in retired pay. It provides for vesting of retired pay for all members who complete at least 10 years of service. It offers partial grandfathering: all service before the date of enactment would be credited under the formula of the current system, and members

with 10 or more years of service at enactment would be permitted to receive immediate annuities after retiring with at least 20 years of service. And it proposes a five-year transition benefit for all members who retire under the new system, to ease their return to civilian life.

As with the "Modified Half-COLA" plan, these features should contribute to the attainment of some of the objectives identified in earlier studies. The delayed annuity provision would increase average career length. Early vesting would enhance the flexibility of the personnel system to separate members involuntarily, and it should also improve retention among younger career personnel at the journeyman level. Large and permanent outlay reductions in both retirement and total military personnel costs would be realized from provisions such as reduced annuities and Social Security integration.

Because of the large reduction in accrual cost and the substantial changes in the structure of the retirement system, however, the PPSSCC "Old-Age Annuity" plan deserves to be labeled the most far-reaching of all the alternatives. For that reason it probably holds the greatest risk. The principal risk is that the estimated change in career force size and composition--although large--might actually understate the change that would occur in practice. Large changes in the value of retired pay lie beyond the range of recent experience; projections of reenlistment behavior in response to such changes are based on extrapolations instead of observations. The PPSSCC plan, which requires the greatest extrapolation, accordingly is subject to the greatest risk of a mistaken projection.

As noted above, however, retired pay is not the only tool--or even the only compensation device--available to retain career personnel. If changes in the career force under the PPSSCC plan or any of the other options proved unacceptably large, the Congress could take other actions to improve retention and meet personnel objectives. Actions such as increasing pay or bonuses would offset some of the savings that could be realized from retirement modernization, but on balance it seems clear that overall personnel costs could be reduced substantially without major adverse impact on the size of the career force.

### Summary of Options

The preceding discussion and quantitative results are summarized in Table 11, which compares the four alternatives on the basis of a number of criteria identified earlier in this study: accrual savings, total personnel

TABLE 11. COMPARISON OF RETIREMENT ALTERNATIVES

	QRM Reduced Annuity and Early Withdrawal	Permanent Half-COLA	Synthesis (Modified Half-COLA)	PPSSCC (Annuity at Age 62)
Accrual Savings in 1985 (Percent)	9.2	25.2	8.4	76.7
Reductions in 1985 Budget Authority (Billions of dollars)	1.6	4.4	1.5	13.5
Outlay Savings (+) or Additional Costs (-) (Millions of 1985 dollars)				
1985	+68	-142	-193	-291
1985-89 total	+1,208	+2,339	+2,707	+2,176
2000	-1,923	+3,159	+3,048	+6,535
2020	+257	+5,816	+4,123	+15,994
Change in Career Force (Percent)				
Size	+4.7	-3.4	-3.0	-11.0
Average Seniority	+2.3	-2.7	-2.3	-7.9
Increase in Incentive for Long Career (20+ years)	Strong	None	None	Strongest
Increase in Incentive for Journeyman Retention (4-12 years)	None	None	Strong	Strong
Adds Flexibility to Separate Involuntarily	No	No	Yes	Yes
Risk of Unanticipated Effects	Least	Modest	Larger	Largest

outlays, change in the overall career force, incentives for longer careers, retention of journeyman personnel, flexibility for involuntary separation, and riskiness (attendant upon the change from the current system).

Interestingly, all the options result in substantial long-run savings but, except for the "Annuity at Age 62" plan, do not have dramatic effects on the total number of career personnel. Long-run reductions are often less than the annual reductions that have occurred in recent years. This finding suggests that the Department of Defense could modify its retirement system to save money and still maintain a career force similar to today's, as long as the Department and the Congress were willing to increase other compensation elements to maintain the desired force level and composition. Such policies might also partially offset changes in average experience levels.

The choice among the options would depend, however, on how much change in the career force was acceptable. The QRMC's plan to reduce annuities coupled with an early withdrawal benefit would entail the least change. The total size of the career force would increase, largely because of the sizable cash benefit available to all those who retired after 20 or more years of service. There would be a strong increase in the incentive for long careers beyond 20 years of service. Along with these effects would come modest long-run savings but, because of the cash early withdrawal benefit, outlays would actually increase for a number of years.

The other three options would lead to reductions in the size of the career force but would also realize larger savings. All three would modestly reduce the average experience level of the career force. The alternatives vary in the amount of savings and in the "pattern" of retention (that is, the willingness of persons to remain in the service to 10 years, 20 years, and so forth).

The permanent half-COLA plan, because it would eventually reduce retirement pay for everyone and not add benefits for anyone, would realize large savings. But because everyone's benefits would be reduced, there would be only modest changes in incentives for longer careers and no change in the flexibility to separate personnel with fewer than 20 years of service.

The synthesis option--a modified version of the half-COLA approach--would reduce benefits for some but add them for others (such as those who leave with more than 10 but fewer than 20 years of service). Thus it would save less than the permanent half-COLA. But it would also make more changes in the pattern of retention by adding some new incentives early in a career and allowing the services to separate more persons involuntarily before they reached 20 years of service.

The PPSSCC's plan would make the largest reductions in retirement benefits. Thus it would save the most and make the most far-reaching changes in the pattern of retention. By the same token, it would be the most risky plan because it would depart most from the current system and hence from the data and understanding that underlie projections of military persons' willingness to remain in the service.

As the preceding chapter made clear, these four options only illustrate the range of possible approaches to changing military retirement. The final section of this chapter illustrates the effects of changes in these four alternatives.

### OTHER OPTIONS

The alternatives described above consist of packages of proposals for changing the retirement system in some (or many) of its different dimensions. Different plans could easily be constructed along the same lines. The studies summarized in Chapter III developed several other proposals for retirement modernization. This section discusses the results of CBO's analysis of a few of the many other possibilities.

The QRMC V proposal to pay a lump-sum amount to members once they retire after 20 or more years of service is designed to maintain the current system's incentives for retention, but at lower cost. Both cost and retention would be affected by the size of the lump-sum payment. If these multiples were reduced by one (twice basic pay for enlisted members, and a lump sum equal to basic pay for officers), career force increases would be only 1.4 percent (15,000 members) and accrual savings would increase to 18.4 percent (\$3.2 billion in 1985). Eliminating the lump-sum payments entirely would remove the plan's only feature encouraging improved retention. In that case the size of the career force would decline by 52,000 members (4.8 percent) and accrual savings would rise to \$6.0 billion in 1985 (a 34 percent reduction from the current system).

Finally, the Synthesis option could be modified along several dimensions while still remaining within the outlines drawn by previous studies. Reducing the annuity multiplier to 1.5 percent for the first 10 years of service and increasing it to 3.5 for service beyond 20 years would reduce the career force by 51,000 personnel and yield accrual savings of \$4.1 billion in 1985. If the catch-up feature were eliminated, so that half-COLAs until age 62 resulted in permanently lower annuity levels in old age, the reduction in the career force would be only 40,000 members, but accrual savings would be raised to \$4.2 billion in 1985.

## Contributory Retirement

An option that has periodically received Congressional attention would be to make the military retirement system contributory in the manner of Civil Service retirement. Under such a plan military personnel would pay some amount (presumably a percentage of basic pay) into a trust fund account. The funds would be held in trust by an instrumentality of the federal government, which might also receive a matching contribution from federal funds. Upon retirement, military personnel would receive retired pay from the trust fund agent.

The impetus for enacting contributory retirement stems essentially from comparisons between the military and civil service systems. With the advent of accrual accounting and the establishment of a military retirement trust fund, the elements for contributory military retirement are in place. What remains is for the Congress to legislate a member contribution. Such a change would generate immediate outlay savings (as member contributions into the trust fund offset other payments out of it). The accrual cost of military retirement also would fall by the same percentage as each member's contribution.

Despite the ease with which such savings could be realized, no previous study except QRMC I has recommended contributory retirement for military personnel.<sup>5/</sup> There are several strong arguments against contributory retirement that should be considered in any current review of the need for modifying military retirement.

First, unlike federal civil servants hired prior to January 1, 1984, military personnel have been participants in the Social Security system since 1956. Accordingly, they already contribute to their eventual retirement through Social Security taxes. When Social Security coverage was extended to new federal employees as of the beginning of calendar year 1984, provision was made in law to hold civil service retirement and Social Security contributions (excluding Medicare) to a total of 7 percent of salary (7.5 percent for Congressional employees). For military personnel, who already contribute 5.7 percent of basic pay to Social Security (exclusive of Medicare), the case therefore is not strong for a further contribution on the grounds of their comparability to federal civil servants.

- 
5. QRMC I advocated that 6.5 of Basic Military Compensation be contributed to fund military retirement and Social Security benefits.

Moreover, private-sector employees who are covered by Social Security and a private pension plan typically contribute only to Social Security. As noted by the PPSSCC, most private-sector pension plans are noncontributory. Here, too, considerations of comparability argue for keeping military retirement noncontributory.

Third, it is generally understood that a switch to a contributory military retirement system would have nearly the same effect on recruiting and retention as a pay cut of the same amount. Contributory retirement would reduce current pay in return for the eventual receipt of retirement benefits. For new enlistees and junior members of the career force, the present value of retirement benefits is far less than the reduction in current pay. In other words, contributory retirement would reduce federal outlays at the cost of impairing military recruiting and retention.

Further, some of the savings from contributory retirement would be negated by tax and refund considerations. At present all (nondisability) military retired pay is taxable; under contributory retirement, however, members would have to receive tax credits on some of their retired pay to reflect their payment of taxes at the time of contribution. (Such a procedure is currently used for civil service retirees.) In addition, members who separated from service before retirement would be entitled to a refund of their contributions, presumably with interest. If contributory retirement led to an offsetting pay raise to maintain recruiting and retention, the combination of additional pay and refunds could actually cause a net increase in outlays if separations in any single year were numerous enough.

These considerations have argued against contributory retirement for military personnel in the past. A review of these arguments suggests that the case against contributory retirement as a vehicle for modernizing the military retirement system remains strong today.

---

## APPENDIXES

---



\_\_\_\_\_

.

---

APPENDIX A.     PROPOSED MODIFICATIONS IN THE MILITARY  
RETIREMENT SYSTEM 1/

---

PROPOSALS OF THE FIRST QUADRENNIAL REVIEW  
OF MILITARY COMPENSATION (QRMCI) (1969)

Financing: Career members would contribute 6.5 percent of Regular Military Compensation (RMC) for military retirement and Social Security benefits. Contributions would be refunded to those separated before becoming eligible for retirement.

Minimum eligibility requirement: 20 years of service.

Base for calculating retired pay: Average of high-one year of Regular Military Compensation.

Method for calculating amount of retired pay: Percentage multiplier of retired pay base for each year of service, as follows:

---

	Years of Service					
	1-8	9-20	21-22	23-24	25-30	31 and over
Percent of RPB per YOS	1.5	1.75	2.0	2.5	3.0	1.5

---

Two-step rate: Multiplier reduced nine percentage points. (Example: Member who retires with 20 years of service has 33 percent multiplier. Step 1 multiplier is 24 percent.) Full multiplier restored based on years of service and age schedule. Example:

- 
1. Derived in part from Congressional Research Service, Financing Work-Related Entitlement Programs (April 1983), pp. 376-81.

---

	Years of Service when Retired		
	20	25	30 and over
Age full rate begins	60	57½	55

---

Maximum retired pay: 75 percent of retired pay base for 40 years of service.

Social Security offset: Age 65. Retired pay reduced by amount of annuity attributed to military service.

Severance pay: Members with over four years of service separated for promotion, for failure, or reduction in force paid one year's pay; if separated for "show cause" reasons, paid up to six months' pay.

#### RECOMMENDATIONS OF THE INTERAGENCY COMMITTEE (1971)

Financing: Annual appropriations to pay current obligations.

Minimum eligibility retirement: 20 years of service for immediate pay; 10-19 for retired pay beginning at age 60.

Base for calculating retired pay: Average of high-three consecutive years of basic pay.

Method for calculating amount of retired pay: Percentage multiplier of retired pay base for each year of service.

---

	Years of Service		
	1-24	25-30	31-35
Percent of RPB per YOS	2.5	3.0	2.0

---

Two-step rate: Retired pay for a member who retires with less than 25 years of service is reduced 2 percent for each year he is under age 60. Full

rate restored at age 60. Retired pay for a member who retires with 25+ years of service is reduced 2 percent for each year he is under age 55. Full rate is restored at age 55.

Maximum retired pay: 88 percent of retired pay base for 35 years of service.

Social Security offset: Age 65. Retired pay reduced by 50 percent of annuity attributable to military service.

Severance pay: Members involuntarily separated with 5-19 years of service receive lump-sum payment equal to 5 percent of 12 months' final basic pay per year of service. Those with 10 or more years of service may elect to receive retired pay at age 60 or a second lump-sum payment.

#### PROPOSED RETIREMENT MODERNIZATION ACT (1974)

Financing: Annual appropriations to pay current obligations.

Minimum eligibility requirement: 20 years of service for immediate retired pay; 5-19 years for retired pay beginning at age 60.

Base for calculating retired pay: Average of high-one year of basic pay.

Method for calculating retired pay: Percentage multiplier of retired pay base for each year of service.

---

	<u>Years of Service</u>	
	<u>1-24</u>	<u>25-30</u>
Percent of RPB per YOS	2.5	3.0

---

Two-step rate: Multiplier reduced 15 percentage points if member retires with less than 30 years of service. (Example: Member who retires with 20 years of service has 50 percent multiplier based on formula above. Step one multiplier is 35 percent.) Full multiplier restored after date member would have completed 30 years of service.

Maximum retired pay: 78 percent of retired pay base for 30 years of service.

Social Security offset: Age 65. Retired pay reduced by 50 percent of the annuity attributable to military service.

Severance pay: Members involuntarily separated with 5-19 years of service receive lump-sum payment computed at 5 percent of 12 months' final basic pay per year of service and retired pay beginning at age 60 or second lump-sum payment.

#### RECOMMENDATIONS OF THE DEFENSE MANPOWER COMMISSION (1976)

Financing: Accrual financing, chargeable to individual military service budget, for cost of future liabilities for members in active service.

Minimum eligibility requirement: 20 years of service and accrual of 30 points for immediate retired pay. Ten years of service for retired pay beginning at age 60 or 65.

(Commission suggested a plan to give point values to military jobs in relation to their combat or noncombat requirements. Combat jobs would be assigned a value of 1.5, noncombat jobs had a value of 1. Other jobs would be given intermediate values. Retirement points would be accumulated at 1/365th of the point value of a job for each day in that job.)

Base for calculating retired pay: Average of high-three years of basic pay.

Method for calculating retired pay: 2.67 percent of retired pay base for each retirement point.

Maximum retired pay: 80 percent of retired pay base for 30 retirement points.

Social Security offset: None. Commission recommended only that level of retired pay should consider Social Security benefits.

Severance pay: Members with ten or more years of service: For voluntary separation, retired pay, as computed above, at age 65 or actuarially reduced amount at age 60. For involuntary separation, lump-sum payment equal to 2.67 percent of final 24 months' basic pay per year of service.

RECOMMENDATIONS OF THE PRESIDENT'S COMMISSION ON  
MILITARY COMPENSATION (1978)

Financing: Fund developed by annual appropriations covering future liabilities for members in active service. Annual appropriations to pay current retired pay liabilities until paid off.

Minimum eligibility requirement:

---

	Years of Service		
	10-19	20-29	30 and over
Age for retired pay	62	60	55

---

(Federal civilian service also could be counted if member had at least ten years of military service.)

Base for calculating retired pay: Average of high-three years of basic pay.

Method for calculating retired pay: Percentage multiplier of retired pay base for each year of service, as follows:

---

	Years of Service		
	1-5	6-10	11-35
Percent of RPB per YOS	2.0	2.25	2.75

---

Maximum retired pay: 90 percent of retired pay base for 35 years of service.

Social Security offset: Age 65 or 62 if Social Security is elected early. Retired pay reduced by 1.25 percent of initial primary benefit per year of service. Reduction may not exceed 50 percent of retired pay.

Severance pay: Members involuntarily separated with five or more years of service paid one-quarter month's final basic pay for each year of service through 10; one-half month's final basic pay for each year of service from 11 through 30. Maximum payment limited to one year's basic pay and not payable to anyone entitled to retired pay.

Deferred compensation: Establishes a deferred compensation trust fund for active-duty members with more than five years of service. Purpose of fund is to provide for transition from military life. Fund financed by government contributions at rates shown below, accumulating interest.

Government contribution schedule:

	Years of Service		
	1-5	6-10	11-35
Percent of RPB per YOS	2.0	2.25	2.75

Members who complete ten years of service are entitled to withdraw up to 50 percent of their funds while on active duty. Upon leaving active duty, members may leave funds in account to withdraw at a later date or convert to a monthly or annual annuity for no less than two years.

#### PROPOSED UNIFORMED SERVICES RETIREMENT BENEFITS ACT (1979)

Financing: Fund developed from annual appropriations covering future liabilities for members on active duty. Annual appropriations to pay current liabilities until paid off.

Minimum eligibility requirement 20 years of service for immediate retired pay; 10-19 years of service for retired pay beginning at age 60.

Base for calculating retired pay Average of high-two years of basic pay.

Method for calculating retired pay: Two-step rate. In step one, percentage multiplier of retired pay base for each year of service, as follows:

---

	Years of Service		
	1-10	11-20	21 and over
Percent of RPB per YOS	1.75	2.0	2.75

---

Step one rate applies until age 60 when step two rate applies. In step two, percentage multiplier of retired pay base for each year of service as follows:

---

	Years of Service		
	1-5	6-10	11 and over
Percent of RPB per YOS	2.0	2.25	2.75

---

Maximum retired pay: Step one, 76.25 percent of retired pay base at 36 years of service. Step two, 76.25 percent of retired pay base at 30 years of service.

Social Security offset: At age 65 or 62 if Social Security is elected early. Retired pay reduced by 1.25 of initial Social Security benefit per year of service, not to exceed 50 percent reduction.

Severance pay: Members involuntarily separated with 5-19 years of service paid lump-sum payment equal to 5 percent of 12 months' final basic pay per year of service. Members with over ten years of service can elect combination of severance pay and cash withdrawals (see below) in lieu of retired pay at age 60.

Cash withdrawal payments: Members separated with 10-19 years of service may elect cash withdrawal payment(s) in lieu of retired pay starting at age 60. Payment is based on one month's basic pay for the first ten years of service and two months' basic pay for the next five years of service for a maximum of 20 months' basic pay. Retired pay entitlement may be reinstated by paying back amount of cash withdrawal.



Members with over 20 years of service may also elect cash withdrawal payment(s) computed at same rates. Any amount withdrawn must be refunded either by repayment before receiving retired pay or through reductions in retired pay.

RECOMMENDATIONS OF THE PRESIDENT'S PRIVATE SECTOR  
SURVEY ON COST CONTROL (PPSSCC) (1984)

Financing: Accrual funding chargeable to individual military service budget, to include full funding of dynamic unfunded liability.

Minimum eligibility requirement: Ten years of service.

Base for calculating retired pay: Average of high-five years of Basic Military Compensation. Members within three years of retirement exempted from this change.

Method for calculating retired pay: 1.6 percent of retired pay base per year of service.

Maximum retired pay: Not discussed. Formula yields 48 percent of retired pay base at 30 years of service, which is maximum years of service under current system.

Social Security offset: Age 62. Retired pay reduced by 1.25 percent of Primary Insurance Amount per year of service. Applies to all annuitants including current retirees.

Severance pay: Not discussed.

Deferred compensation: No annuity until age 55. If member elects to receive it before age 62, annuity is permanently reduced by ½ percent for every month that member's age at initial receipt is short of 62nd birthday.

Transition payment for members with over 20 years of service during first five years after retirement. Transition base equal to 1.6 percent of retired pay base per year of service. Transition benefit:

---

	<u>Years after Retirement</u>				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Percent of transition base	100	80	60	40	20

---

Cost-of-Living Adjustment (COLA): Full COLA from initial receipt of annuity until age 62. One-third COLA after age 62. No adjustment of retired pay base between date of separation from service and initial receipt of annuity. Applies to all annuitants including current retirees.

RECOMMENDATIONS OF THE FIFTH QUADRENNIAL REVIEW OF  
MILITARY COMPENSATION (QRMC V) (1984)

Financing: Accrual funding, according to current law.

Minimum eligibility requirement: 20 years of service.

Base for calculating retired pay: Final basic pay for members entering service prior to September 8, 1980. Average of high-three basic pay otherwise.

Method for calculating retired pay: 2.5 percent of retired pay base per year of service; 3 percent reduction for each year that years of service at retirement are short of 30 years of service.

Maximum retired pay: 75 percent of retired pay base for 30 years of service.

Social Security offset: No.

Severance pay: No change from current system.

Cost-of-Living Adjustment (COLA): 3/4 COLA for all retirees under age 62. Full COLA thereafter, but no restoral of retired pay base.

Cash withdrawal payments: Members retiring after 20 or more years of service receive cash withdrawal payments at retirement equal to final basic pay multiplied by two (for officers) or three (for enlisted). After the completion of 20 years of service but before retirement, members may elect interest-only loans up to the cash withdrawal amount.

---

## APPENDIX B. PERSONAL DISCOUNT RATES

---

TABLE B-1. PERSONAL DISCOUNT RATES

Years of Service	Army		Navy		Air Force		Marine Corps	
	Officer	Enlisted	Officer	Enlisted	Officer	Enlisted	Officer	Enlisted
1	11.6	14.8	11.2	13.9	11.6	14.2	11.9	13.9
2	11.6	14.7	11.2	13.8	11.6	13.4	11.9	13.8
3	11.6	14.6	11.2	13.8	11.5	13.4	11.8	13.7
4	11.3	14.3	10.9	13.4	11.3	13.1	11.8	13.7
5	10.7	13.7	10.7	13.3	11.3	12.8	11.5	12.9
6	10.5	13.4	10.5	12.5	11.2	12.8	11.2	12.8
7	10.5	12.9	10.2	12.5	11.0	12.8	11.0	12.5
8	10.3	12.8	10.2	12.2	10.7	12.5	11.0	12.4
9	10.3	12.8	10.0	12.1	10.5	11.7	11.0	11.7
10	10.2	12.4	9.8	11.8	10.5	11.7	10.6	11.7
11	9.9	12.4	9.8	11.5	10.4	11.7	10.6	11.7
12	9.9	12.3	9.6	11.4	10.3	11.7	10.5	11.6
13	9.8	12.3	9.5	11.4	10.2	11.6	10.4	11.6
14	9.8	12.3	9.5	11.4	10.2	11.6	10.3	11.5
15	9.8	12.3	9.5	11.4	10.2	11.6	10.3	11.4
16	9.8	12.3	9.4	11.4	10.1	11.6	10.3	11.4
17	9.8	12.3	9.3	11.3	10.0	11.6	10.3	11.4
18	9.8	12.0	9.3	11.3	9.9	11.6	10.2	11.4

(Continued)

TABLE B-1. (Continued)

Years of Service	Army		Navy		Air Force		Marine Corps	
	Officer	Enlisted	Officer	Enlisted	Officer	Enlisted	Officer	Enlisted
19	9.5	12.0	9.2	11.2	9.9	11.4	10.2	11.4
20	9.5	12.0	9.2	10.9	9.8	11.4	10.1	11.3
21	9.3	11.4	8.9	10.6	9.5	10.8	9.9	10.6
22	9.0	11.2	8.9	10.5	9.5	10.8	9.7	10.5
23	9.0	11.0	8.8	10.3	9.3	10.8	9.6	10.4
24	8.8	11.0	8.7	10.0	9.1	10.7	9.6	10.3
25	8.7	11.0	8.6	10.0	9.1	10.1	9.6	10.0
26	8.4	11.0	8.0	9.6	8.7	10.1	9.0	9.9
27	8.4	11.0	8.0	9.6	8.7	10.1	9.0	9.9
28	8.4	11.0	8.0	9.6	8.7	10.1	9.0	9.9
29	8.4	11.0	8.0	9.6	8.7	10.1	9.0	9.9
30	8.4	11.0	8.0	9.6	8.7	10.1	9.0	9.9
31	8.4	11.0	8.0	9.6	8.7	10.1	9.0	9.9
32	8.4	11.0	8.0	9.6	8.7	10.1	9.0	9.9
33	8.4	11.0	8.0	9.6	8.7	10.1	9.0	9.9
34	8.4	11.0	8.0	9.6	8.7	10.1	9.0	9.9
35	8.4	11.0	8.0	9.6	8.7	10.1	9.0	9.9

SOURCE: Matthew Black, Personal Discount Rates: Estimates for the Military Population (Systems Research and Applications Corporation, Arlington, Va., May 20, 1983).